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# Science Fiction

132  
PAGES

## I AM TOMORROW

Astonishing Novelet  
by Lester del Rey

Plus Stories  
by  
H. B. FYFE  
ALFRED COPPEL  
DAVE DRYFOOS

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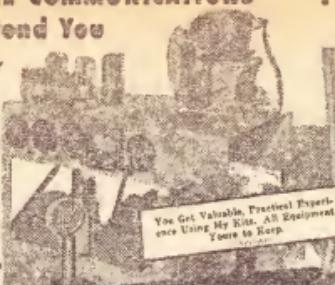
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# *Dynamic* **Science Fiction**

Volume  
One  
Number  
One  
December  
1952

Cover by A. Leslie Ross

ROBERT W. LOWNDES, Editor

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# THE LOBBY

A Department for Science Fictionists

THE FIRST issue of a new magazine is pretty much of a special event to all concerned, and a special challenge to the editor. Here is his opportunity to make a fresh start, to show what he's learned from experience, and to take advantage of some of the numerous suggestions and pleas that readers have been making. Even if the new magazine is to follow the general line of "policy" adopted for all titles in a particular category, the editor's job is to make the newcomer an individual in its own right, to have some special line of departure.

Oldtime traditions and caricatures have presented pictures of this person known as "The Editor" which are as ludicrous as they are false to the facts, in most cases. I've had the privilege of dealing with a number of my colleagues, and nearly all of them have shown themselves to be people with a healthy balance of

positive talent in their profession, combined with intelligent awareness of their limitations. You've probably heard the canard that an editor is a frustrated writer, who compensates for his own disappointments by lording it over writers who work for him, taking sadistic pleasure in downgrading their material. This may have been true (and may be true now,) of some—but it isn't the general rule by far. I've known too many editors who were, and are, good to excellent authors in their own right, and who have gained enough recognition on these grounds not to have any need for such behaviour.

We all want the "best" for our magazines, but the definition of that adjective varies widely—both in respect to company policies and to individual tastes. Some are more successful than others in formulating what they mean by "best", in such

[Turn To Page 8]

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terms that writers can get a reasonable idea of what is meant. And, by your personal standards, dear reader, the "best" may be none too good in some cases. This is as it should be; there would be a single, standard definition only if everyone thought alike, or if standards were defined officially by the government.

And perhaps you've talked to editors, or read fairly lucid articles by them stating what they meant by "best"; then you picked up the latest issue of their magazines and wondered what was going on, because what you found therein didn't jibe with what the editor said he wanted. There's a reason for that; in fact there are many reasons why this might be the case at almost any time: a periodical, by definition, appears at regularly-stated intervals—which means that the editor of any magazine has to send off manuscripts to the printer, for a particular issue, no later than a specific date. If the "best" hasn't appeared by that time, then the editor has to compromise in some way. This isn't an alibi; most of us feel we've pulled boners—as who hasn't?—but we've also brought forth issues which we felt (and readers agreed) were good ones. And each new issue presents its own challenge of equaling the top-level of previous accomplishment, if not surpassing it—or at the very least, not repeating past errors.

One definition of the word, "dynamic", is "forceful"—and that is the keynote of story-policy for *Dynamic Science Fiction*. We do not expect that our fiction will give you a study-course in any of the sciences; we aren't plugging any political or social philosophy; we aren't looking for any word-magic which will sooth psychosomas, nor do we anticipate the next century's selecting stories we publish as specimens of great literature of the past. The general aim of this magazine, as well as with our companion-titles, *Future Science Fiction* and *Science Fiction Quarterly*, is what I've frequently

referred to as "intelligent entertainment"; we want stories which hold interest as stories, first. We also want something else (besides the story line) which might make you think a little, feel a little, wonder a little, etc., beyond the everyday manner of thinking, feeling, wondering, etc.

**L**E'T'S SEE, then: why did we pick some of the stories in this issue? What were their aspects that made us select them for *Dynamic Science Fiction*, outside of the fact that they struck us as being better than just "good"? (I'll leave it up to you to tell me whether you feel any of them belongs in that elusive "best" category.)

Lester del Rey explores some of the potentialities inherent in Silas McKinley's social theories; whether McKinley is "right" doesn't figure as relevant. Personally, I'm inclined to consider McKinley sound, but that isn't my criterion; I've run stories in the past based on scientific or social theories I wouldn't endorse, and expect to do so again in the future. The one question I ask, in this frame, is not: "Is the theory sound?", but: "Is it interesting?"

William C. Bailey offers an interesting background for a suspenseful story; not too much meat there, but it offers a change of pace which helps for balance if you're reading through an issue, at one time. It brings me to my first query: Would you like to see one story per issue, or an occasional story, of this type—or would you prefer that we stick to more substantial fare throughout? (In some cases, such a story would represent a compromise on my part; this time, it didn't.)

H. B. Fyfe, Alfred Coppel, and Dave Dryfoos all offer various aspects of possible situations, and problems arising out of human thought and behaviour-patterns, when people contact alien entities.

Poul Anderson has my idea of the perfect type of science-fiction article

[Turn To Page 10]

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SENT ON APPROVAL

—a speculative essay relating to the kind of "science" you come across in science-fiction, rather than the kind of article you'd find in the *Scientific American*.

That's as far as I can go, right now, because I cannot be sure, at this point, whether all the other stories planned for this issue will get in—or which, if any, will be crowded out. I still haven't learned not to try to cram several thousand more words into an issue than space will allow for, and since the advertising schedule for our magazines varies from month to month, I can never be sure in advance exactly how much room there will be. Also, I can't always tell exactly how many pages a given story will run; art layouts, as well as the way a story "sets" make it indefinite. Two 5,000 word stories, for example, may not run the same number of pages, due to the way in which the author paragraphs his copy. Sometimes there will be just one page or half page over; and I'm against extensive cutting in order to make a story "fit." Any "cuts" should represent the editor's opinion of what is necessary to clarify or tighten a manuscript, which may be a little vague or over-expansive in a few places, and should be done before the manuscript goes to the printer. (That's my opinion, not an official pronouncement of unquestioned authority.)

And, finally, I hope you like the cover and artwork. Complaints about strip-tease covers and illustrations, as well as the response to our first trials with the higher-grade type of science-fiction cover seem to indicate that the audience for pulp science-fiction

(the majority are not "fans" or "steady readers") is attracted by our latest experiments. Several thousand of you, no doubt, will now say "I told you so!"; but the proof of this pudding lies in sales-figures, as well as letters of comment.

### Letters

"The Lobby" is here for you readers who like to sound off, and see what other readers have to say, too. We'll publish as many letters of general interest as space permits, but rest assured that your letter will be read and your votes counted, in any case. In our next issue, you'll find "The Reckoning" set up as in *Future and Science Fiction Quarterly*, showing how the stories in this issue rated.

We want to hear from you, and while we love to be praised, your honest opinions are what we need in order to coordinate. So...if you haven't time for letter-writing, or just don't feel like it, send in the Readers Preference Coupon, anyway. Those place-ratings will help us in decisions on future stories, as well as show whether the majority agreed with your own views.

Suggestions are more than welcome, so don't hesitate to send them on. After the next issue, we'll hand out original illustrations to letter-writers whose efforts you liked best; this time, I'll pick the winners. And my basis for selection will be on the strength of the best suggestions that I can put into effect, either right away, or in the near future.



### STATISTICS CAN BE FUN

The first issue of the first science-fiction magazine, *Amazing Stories*, appeared in 1926, dated April. Twenty-six years later, science-fiction magazines abound, and this is the fifth new title to appear in 1952. We feel that there can't be too many good ones, and hope you'll consider *Dynamic Science Fiction* as one of the best.

Why not write a letter, today, and give us more statistics?

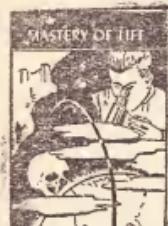
# WHAT SECRET POWER DID THIS MAN POSSESS?



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(A Rosicrucian)

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Blake could feel something tugging at his mind again...

VOTE  
FOR  
PARK

Feature Novelet of  
Destiny Denied  
by Lester del Rey

# I AM TOMORROW

His dream was to give people freedom — not to hand it to them on a platter, but give them the one weapon they needed to win it for themselves. But to do this, Thomas Blake had to get into a position of power, had to obtain the Presidency. That was his only motive for his ambition. But, as his aide, Gideon Pierce, said, ". . . once you have the power, and somebody bucks you — you know what will happen!" It wouldn't happen, Blake swore—but would it, after all?



**I**DIOCY wrenched at the mind of Thomas Blake; the television cameras, the fine old mansion, the people cheering, all seemed to vanish into a blankness. His mind was suddenly alien to his brain, his thoughts twisting against a weight of absolute blankness that resisted, with a fierce

impulse to live. Before him, light seemed to lash down; and a grim, expressionless face swam out of nothing, while an old man's voice dinned in ears that were curiously not his.

It passed, almost at once, leaving only the sureness that this was more than fancy. Blake caught a quick view of himself in a monitor, spotting the sagging muscles of his face, and carrying them back to a smile. His eyes darted to the face of Gideon Pierce, and he saw that the slip could only have been momentary; his campaign-manager was still smiling the too-warm smile of a professional politician, creasing his fat jowls into false pleasantness.

The shouting behind him caught Blake's ears then, making him realize that his short speech was ended. He stood there, studying himself in the monitor. He was still lean and trim at forty, with the finest camera face in politics. To the women, he had looked like a man who was still boyish; to the men, like a man among men. And none of that had hurt, though it wasn't the only reason he had just been conceded victory as the youngest governor of the state, on his first entry into politics.

But under his attempt to appraise himself, Blake's mind was still trembling as if huddled down into the familiar pattern of his physical brain. Mice, with icy feet, sneaked up his backbone, and centipedes with hot claws crawled down. No man can ever feel another brain—and yet Blake had just experienced that very feeling—contact with a vague, mindless, inchoate brain that no dream, or attack of nerves, could have conjured up for him.

He reached for a glass of Chablis and downed it at a sudden gulp, before the wash of congratulatory hand-claps could reach him. Gideon Pierce suddenly snapped to life and was at his side, sensitive to every deviation from the normal. "Nerves, Tom?"

Blake nodded. "Excitement, I guess."

"Go on up, then; I'll take care of them here."

For a second, Blake almost liked the man, hollow though he knew Gideon to be. He let Pierce clear the way for him, not even listening to the man's explanations, and slipped out. Blake's room was on the fourth floor, where he had grown up as a boy, but with a private entrance and stairs that were a later addition. He slipped up to its quiet simplicity; there, in the soft light, with the big logs burning down to coals in the fireplace, seated in his worn leather chair before his desk, he should have been safe from anything.

He should have—but the wrenching came again. There was no light this time, but the same voice was droning frantically in the distance; and again he felt the touch of a brain, filled with stark idiocy, fighting to drive him out of its alien cells. He was aware of a difference this time, though—a coarser, cruder brain, filled with endocrine rage in spite of its lack of thought. It fought, and won, and Blake was suddenly back in his room.



For a second, his senses threatened to crack under hysteria, but he caught them up. In the small bathroom, he found a four-year-old box of barbiturates and swallowed two of them. He knew they wouldn't work for minutes, but the psychological relief of taking them meant something.

The idea of a strange attack on him hit Blake; at once, his fingers flew out to a knob on the desk, pressing it in a secret combination. A concealed drawer slipped out, and he grabbed at the papers inside—they were all there. His brother, James, had spent ten years—and fifty million dollars,

that had bankrupt and killed him, to get a few diagrams and instructions onto these papers.

Silas McKinley had postulated that some form of military absolutism was inevitable when the greatest weapons of the time required great means to use them—as had the phalanx, the highly-trained Roman Legion, the heavy equipment of feudal knights, or the atomic bombs, planes, and tanks of modern war. Contrariwise, when the major weapons could be owned and used by the general citizenry, then reasonably-peaceful democracy must result, as it had from the colonial muskets of the 18th Century, and would do from the use of James Blake's seemingly-impossible accomplishment.

Unless, Tom added to himself, it could be suppressed. Stealing the papers wouldn't be enough for that; he had them all completely memorized. He managed to grin at his fear, and closed the drawer, just as a knock sounded and Gideon Pierce came in.

**W**ATCHING the man's public mask slip off and reveal a cynical, old face did more to stabilize Blake's emotions than any amount of barbiturates could have done. He motioned to another chair and poured whiskey and soda into a glass, adding ice from the small freezer in the little bar. "Rough down there?"

The older man shook his head. "No—not after we knew you won; I'm used to celebrations. But—my God, Tom—the last month—the way you were going, you didn't have a chance! Getting the nomination was miracle enough—you had no business winning with the stuff you were handing out! It's all right to promise things—but you have to be realistic about even that! When you can't deliver..."

"I'll deliver," Blake told him. "I've always delivered on everything I ever said I'd do; and I've always tried to give them what they really wanted.

Now I want something—and they give it to me. The old principle, Gideon—cast thy bread upon the water and it shall return after many days."

"Yeah—soggy!" Pierce swirled the drink in his mouth and swallowed it without tasting it. "So what do you get out of it, if you *do* manage to keep some of your promises?"

*Insanity, maybe,* Blake thought, remembering the mind-wrenching; then he thrust it down. "I get to be President—where I can *really* do some good; where I can give them decent, honest, democratic peace and self-respect."

"Sure." Pierce dragged out a cigar and began chewing on it, shaking his head. "Tom, I'm beginning to believe you mean it. If you do, take the advice of a man who has been around longer; get out of politics! It's no place for you. You're too naive—too filled with bright ideals that are one hundred percent right—except that they neglect human nature. You'll find even the President has opposition, boy; once you *have* the power and somebody bucks you, well—well, you've seen it happen. And you get bitter. I was full of noble thoughts once myself; take a look at what you see on my face now. You don't belong in this racket."

Blake held out a lighter to the other, grinning. "They told me I didn't belong in the newspaper-business, Gideon. When I inherited my foster-father's string of yellow, warmongering journals and decided to build them into the honest, fighting group they are now, they told me I'd go broke. I doubled the circulation."

"Yeah—and probably convinced a few thousand voters to change their ideas—until they voted; then they cast their ballot for favors, and with the same selfish reasons they'd had before. You're as hopeless as your brother James, burning himself out and wasting a fortune on a perpetual-motion machine. But you're going to

break my heart when you find out the facts. Oh, hell! Good night, Governor!"

Pierce got up and went out, grumbling before Tom could sputter the words that came to his lips. Then he shrugged; James Blake had deliberately built up a reputation as a crackpot while he went ahead turning a gadget out of the wildest of science-fiction speculations into reality. He'd developed a hand-weapon which was equal to a cannon, for offense, and simultaneously protected the user from anything up to the first blast of a hydrogen bomb.

And now it was up to Tom Blake to get to a position where he could have this weapon produced in quantity, and released before it could be suppressed. As President, there would be ways he could do that; with it would come an end to war, once and for all, and the genuine equality of all men. Maybe this was idealism, perhaps even naive—but the Blakes got what they wanted.

He started to undress, and then flopped down on the bed with half his clothes on. It had been a hard day, and those two attacks hadn't helped any; they must have been caused by nervous strain, he thought...and knew he was only trying to deceive himself. But the barbiturates were working, finally, bringing a cloudy euphoria that kept him from pursuing his doubts.

He was reaching up for the light-switch when the third attack came.



**T**HIS TIME, it was different; the first ones had been mere feelers; now the attack on his mental stability had the sure drive of power and firmness behind it.

The euphoria vanished, as if Blake's thoughts no longer had any relation

to his body—which seemed to be the case. He tried to see, and found that there was jet darkness around him. He could no longer feel his arm raised toward the switch—though he was sure he hadn't dropped it, and that the light must still be on. There was no feeling of any kind.

That was wrong, though; he could feel a *pull*, but it bore no relation to anything he had experienced before, except in the two previous fantasies. It was as if immaterial tongs had clasped his thoughts and were lifting them, delicately, but with all the power of the universe. There was a snapping, and then only a wild, confused feeling of transition.

Everything seemed slower than before. Now the pressure guided him toward something—and there was a resistance which the guiding force could overcome only partially. Streamers of emotion shot out at him—and his own wild desire for a locus and a point of stability met them and clashed in something which managed to be agonizingly painful, yet without sensation!

Idiocy again!

The brain set against Blake's own mind resisted without thought, without the slightest trace of knowledge. He could sense the wild frenzy with which it collected data as it went and tried to find answers that were not there. Something that might have been a soundless scream of desperation went up from it, as the force guiding Blake managed to press it aside.

Blake felt the probing brain wrenching more wildly than he himself had been handled; again, there was a feeling of something snapping. Beside him, something tried to maintain itself, but without enough individuality to hold; it began drifting into nothing, and then was gone. But where it had been, was a suction that dragged him toward it.

He settled suddenly, feeling the alienness of a new location. It wasn't either of the two other places where he *had* been—this was new. There was nothing here to contest with him for

his place, but something tried to erase him into the emptiness that had been the idiot-thing before him. From somewhere outside, force and pressure seemed to descend, to mold Blake's new haven into the patterns of his thoughts, and make it accept him. The effort of holding his own, where he himself was still alien, became less; but it now fitted his mind. It was cramped, and without the warmth of his own body, but he was physically alive again.

The pressure vanished, and he relaxed back on the bed suddenly.

But this wasn't Tom Blake's own bed, any more than it was his own body. This was a hard pad under him, in place of the foam-rubber cushion—and this new body seemed to be quite unmindful of the bumpiness, which his own body would have found intolerable.

Blake shook himself, chasing away the final stages of the fantasy this had to be. He was probably half-asleep, which made this one last longer; if he opened his eyes...

They seemed to work with difficulty, but they came open finally, to show the contour of a body under a dingy, grey sheet—something that must have been black, before it faded. Blake moved his hand, glancing at it. His eyes focussed slowly on a heavy, muscular arm, deep-brown from sun and wind, that ended in a hand covered with hair, and lacking a finger.

Blake tried to scream. He was hysterical inside, but no sound came out; the lack of physical response struck him like a second blow, snapping him out of it.

He wasn't in his own body, and this wasn't a dream. Somehow, something had picked up his thoughts and memories and planted them in the skull of an entirely different man. It couldn't be done, but Blake was here to prove it.

"*Magic*," came the memory of his brother's words from their adolescence, "*does not exist. It is only a distortion of what could be scientific*

*facts, if properly understood. If poltergeists exist, then accept them, but remember they're natural phenomena obeying natural principles we don't fully understand. That's science."*

BLAKE CLUTCHED at the idea. Nobody had conjured him here, wherever here was; it was the work of intelligence, operating with natural laws—and that could never be fully horrible. He was only feeling horror because the cave-beast that feared the dark was part of his emotional and environmental heritage.

He put the cave-beast down enough to try to find where "here" was.



He found that his head was strapped down, and that webbing under the sheet restrained his new body. Inability to move more than his eyes limited his view to one end of this room. He could see monitracks over his head, with great machines that might have been anything from lamps, to over-sized routers sliding along them, under the cold glare of fluorescent tubes. The wall ahead of him was a featureless grey; the floor was out of his view. And along the wall was a single bench, covered with cots, each holding a body strapped down as Blake's was. Their heads were clamped, hiding them from him; but he could see that each had a hairy hand outside the sheet, and that all the bodies were about the same height and build—fairly tall, and uniformly solid in build. He supposed he fitted the same description, since there was so much uniformity.

As he watched, the machines travelled down the track, stopping in

clusters over a few heads at a time, while odd lights glowed, and a whirling sound came from them. From each man under a cluster of machines, there would be a mutter, then a prolonged groan...and silence, until the machines moved on.

It wasn't an inspiring view, and it told Blake almost nothing. He seemed to have seen bits of it before in his first attack, but he couldn't be sure.

As he watched, a door opened in the wall, and a man came through, dressed in a smock that fell to the floor and was of shiny black material. He was tall and thin but wide-shouldered, with a face that was frozen into complete lack of expression. A chill shuddered through Blake; this was the same face he'd first seen. Then, somehow, even that bit of familiarity made it easier to take.

He wasn't surprised to hear a mutter in the voice of an old man. It was a complaining sound, ending in a sharp question.

The smocked man shrugged. "I know, Excellency, but we're beyond even the borderland of familiar science here. If it works, it will be a miracle. I told you that then, and I still say it. Once we catch him, we can erase him. But the problem is to catch him—on fancy guesswork as to just what mind-pattern we're looking for, way back then."

"Something worked before." The figure coming through the door now looked at the rows of men, with a sharpness oddly in contrast with the voice. He was of indeterminate age—somewhere between sixty and eighty, Blake thought. But his body was reasonably straight, and with none of the fat or gauntless most older men have. His hair was steel grey—just a shade darker than the soft grey uniform he wore—and his movements were seemingly easy and sure. His face was handsome except for the expression there. The mouth was too straight, the eyes too cyni-

cal—and over the aura of power was a hint of repressed but seething fear.

He coughed, and turned to the nearer group of figures on the cots. His voice suddenly lost its touch of tremor, and became the firm, modulated tones of a trained speaker. "Well, don't you think it's time you asked where you are, young man?" he asked.

The nearer figure struggled to sit upright. "*Wahnsinnigkeit! Um Gottes Willen, wenn ich nur frei wachre...*"

"German," the man in the black smock said. "And you don't speak it."

"Never learned it," the older man agreed. He looked down the line, started toward another, and then shrugged; a sudden smile flashed over his face. "Tom Blake, you're the man we want; are you here?"

"Here!" The word ripped out of Blake with an explosive force of its own, while all his uncertainties gathered themselves together in expectation of the explanation that would now mercifully be forthcoming.

The other man beamed. "Good, Tom! Remember the desk combination? We have to be sure." His voice was almost young now.

"Right in, left in, left out, twice left," Blake repeated.

"That's it!" The old man beamed again, and was still smiling as he turned to the man in the black smock. "Okay, Sarnoff. Burn out his brain—and do a good job of it, because I'm watching!"



**B**LAKE SCREAMED as the machines suddenly swooped over him, and one began droning again. He had no way of knowing what it would do—but the result was obvious from the shouted words. Sarnoff climbed up and inspected it, giving it a sudden test. Something in

Blake's mind slithered, and the force of the alienness grew stronger.

"Pure luck," Sarnoff said, his voice as emotionless as his expression. "Even with what we had to work with, guessing his resonant frequency range was just good luck. I didn't even know whether we could reach back forty years into the past. Excellency, I deserve that bonus—but chance deserves a bigger one."

"You'll get your bonus," the older man agreed, and some of the age crept back into his speech. "Double it. We've got his mind matrix here—here where we can work on it with the burner; that's all I care about. I want it eliminated permanently, Sarnoff!"

The other nodded. The machine began to purr again, and Blake felt another scream come to his lips, and freeze there. Forty years into the future—to be eliminated! It wasn't science or magic—it was simply horror. There was no purpose...no right...no...

The slithering began in his brain again. This wasn't the same as the previous force; it was an erasing of himself. Tom Blake's memories began to blur, beginning with the earliest ones. His foster-father suddenly stepped before his mental eye, chuckling at a successful creation of trouble at a disputed border that would be constant headlines for his papers. Then he foster-father was gone, and Blake had no memory of anything before the age of ten.

His brother...what had his brother said? Funny, how he'd ever gotten the chain of newspapers? Someone must have given them to Tom. Then the election was gone, and all he had heard here.

He lay staring up at the pretty lights that glistened in the machine. A dim consciousness of self was left, but it seemed to be half outside his head—as if a funny part of him were trying to pull away and go back somewhere. He had no words, nor could

he understand the words that were said in front of him.

His eyes moved whenever sudden motion brought them around by catching their attention. But it was all something interesting in a purely sensory way. He saw Sarnoff test him; he lay for hours in a big room with other bodies that stirred senselessly. He felt them carry him to a truck and place him inside. The motion of the truck was scary and exciting at first, but he went to sleep soon after. His bodily functions woke him, just as the truck came to a sudden halt and other men climbed into it and began carting the drooling creatures with him away somewhere. But then he went to sleep again.

Far away, a part of himself as bereft of words as Tom was, began to cry unhappily, as if conscious that this was wrong. But it didn't waken him.

There were the beginnings of words again, when he finally did begin to come out of his sleep. Slow, bit by tedious part, his mind seemed to be reaching back to its dimmest recesses and pulling facts up for him. Sometimes whole chains of thought would pop into his mind and fade back into his permanent memory. Again, it would take what seemed like years of concentration to root out one totally unimportant thing.

Blake was delighted when he discovered who he was. He mouthed his name to himself, soundlessly. The motion brought some attention; a sharp prick that he somehow identified as a hypodermic needle was thrust into his arm.

"Go to sleep," a soft voice whispered. "Sleep, Jed. We need you whole, and you'll come back better if you don't try too hard. That's it, honey!"

BLAKE WAS himself when he wakened—or rather, that other body with its alien brain which somehow had become himself. He was in a basement, from the smell and the damp-

ness; lying on a cot across the dimly-lighted room from a small, crude machine that resembled one he had seen in Sarnoff's place. Another of the men who had been on one of Sarnoff's cots sat near him, watching doubtfully, with some kind of a gun in his hand. And beside him, leaning over to kiss him as he opened his eyes, was a girl with an intense, half-pretty face and eyes that could have drawn the damned from Hell straight through the pearly gates.

She held him, moaning softly against him as her lips burned on his. Blake wanted to push her aside for a moment, but the body and brain in which he now lived had a warmer endocrine balance than his own. Desire washed over him, yet with a strange mingling of gentleness and protective instinct. She drew away at last, her eyes misty and shining. "Jed! Oh, Jed."

From the other cot, the man chuckled. "Give him a chance, Sherry! The guy's been through plenty—I know!"

She blushed, and dropped her eyes. Blake's mind jerked at the archaic behavior. He studied her more carefully, waiting for hints from them. Obviously, they knew him as the person who had formerly inhabited this body. But beyond that, he had no clues.

Sherry was dressed in a dress that touched the floor and came high on her throat. Even the sleeves were fastened at her wrists. She blushed again, as he watched, and tried to pull the hem of the skirt—or rather, the floor-length, ballooning jodhpurs—down over a toe that was showing. "Jed!" she breathed indignantly. "Not here!"

The man chuckled again, not too nicely, and gave up trying to see the whole of the girl's shoe. He came over to drop on the cot beside Blake, tossing the gun at him. "Here, Jed, you'll need your statidyne. Lucky for you you'd had a light dose of mind-burning before; they really gave you the works that time. We thought there wasn't a trace of a memory left in

your head, but Mark swore the brain can't be washed completely a second time. We put you under his restorer, on a chance—and here you are, good as new."

"Not quite." Blake knew he couldn't stay silent for ever, and a little truth might help. "I'm not quite the same. I..."

"Blank spots!" Sherry moaned it. "We had them with Herman, too.... Rufe, can we put him back under the restorer?"



"Mark said he'd gone as far as he could," Rufe told her. "Jed, what's missing. The last few years? After you joined the movement, or before?"

"Not after, Jed," Sherry begged. But Blake nodded slowly.

Rufe motioned Sherry out. "This is going to be rough," he warned her. "No stuff for mixed company when we talk about *him* in a hurry. Even if you have been married three years."

She kissed Blake quickly, while he absorbed the fact that he was now officially married, and then she slipped out after an elaborate examination through small cracks in a doorway. Rufe came closer, squatting down.

**RUFE'S TALK** was a quick summary of why Blake had apparently joined a rebel movement against the dictator this world seemed to have. It was old stuff to anyone who had grown up in a world where Hitler and Mussolini had been daily fare in the papers, with only a personal element added. The Bigshot—obviously a swearword now—had taken over slowly, always with the velvet glove over the steel fist. He'd apparently had some sort of invincible weapon, since he'd united the whole world under his heel.

Then he'd begun reforming it.

Criminals first—and then non-conformists had been treated to progressively more severe erasure of all memory and personality. The unfit had been sterilized. All labor had been handled through the State; all profits were "equalized", and the Iron Guard had grown up, using weapons that could not be overcome. Finally, the mind-burning and sterilization had gotten out of hand; complaints had added up until the rebels began to sprout under every tree—as Blake found he had rebelled after being pronounced unsafe, and receiving sterilization. Twice, they had tried to revolt, and twice they had been battered down. Now the third try was due, without any better chance against the invincible Bigshot.

But they had discovered from Mark, the spy in Sarnoff's laboratory who had built their restorer, that there was less time than they thought. A new rejuvenation-treatment had been found: in two weeks the eighty-year old dictator would be restored to something like forty. From his meaningless gabble with Blake, in Sarnoff's laboratory, Rufe was sure the man was now in his dotage; however, there wouldn't be any chance against him later he was restored to his age of greatest vigor.

"Playing jokes like that," Rufe finished, shaking his head. "Used to burn us quick, but now he's making a bit more of it, *dat*—no, by golly, darn him! You rest up a couple days, Jed. We're going to need you."

Blake didn't try to press Rufe for more details: this was an old, familiar story in history, even though it seemed to be a burning new one to Rufe. But it puzzled Blake—here was exactly the events which he was hoping to end with his brother's weapon. He protested weakly. "I'm not that important to you, Rufe."

"You're not! You don't think they pulled a broad-daylight rescue for me, do you? No sir! Another week, when we get that entrance blasted, you're going to be the man of the hour—the man who can outshoot all of us, that's

who. We can't go without our head executioner can we? Jed, when you get Mr. Bigshot Thomas Blake in your sights I'd... Hey what's wrong?"

"Nothing," Blake managed.

But Rufe was already leaving. "I talk too much when you need sleep. You rest up, Jed, and I'll see you later."



**B**LAKE SAT rigidly, trying to fit it into his knowledge, and finding it an indigestible lump. For minutes, he tried to convince himself he was suffering from delusions—but that explanation required such a degree of insanity that the question of "reality" wouldn't matter at all; he rejected it.

Blake decided to see what sort of order he could make by accepting these events and objects at their face-value.

There was a sort of pattern. Someone had taken the trouble to fish Tom Blake's mind up through forty years, in the hope of eliminating it. That "someone" was Sarnoff, and Sarnoff was obviously working for—for the Bigshot; then the man behind what had happened to Tom Blake had to be Tom Blake himself, as he was in this later age—or, perhaps, someone near the throne who regarded the Blake of forty years ago a menace to the Blake of "now". Then, because of this man Mark, he—the younger Blake—had been saved, simply because the body in which the younger Blake's consciousness rested was the body of one of the rebels' chief tools.

Blake remembered a phrase he'd often heard, "A is not A"; here was an example of it, and with a vengeance!

Somehow, on all sides, he—young Tom Blake as he now was beginning to think of himself—was supposed to

be a menace to his later self. Tom Blake A was presently embroiled in a war—a “future” war—where his sole purpose was to kill off Tom Blake N—the product of forty years of Tom Blake A’s living.

He wanted to reject the proposition; he rebelled against it; every reaction shouted “I am I; I am Tom Blake; I *won’t* change!”

He put it into the back of his mind, as he had learned slowly to do with things that had no seeming answer, afraid to touch it further—consciously, at least. He picked up the gun Rufe had left him, and began examining it. A hinge on the top of the plastic case caught his eye, and a second later the case lay open.

It was the gun James Blake had invented—the gun that was supposed to end all strife, prevent war, and bring in eternal democracy!

Then Tom shook his head; this was only part of that gun. The original invention, which had taken years of work by “geniuses” under the “super-genius” leadership of James, was simply a selective stasis field. It surrounded a man with a bubble of force—or lack of force, depending on how you phrased it; that bubble was carefully adjusted on several levels, so that nothing material beyond a certain low speed, and no energy-particle beyond a certain level of energy, could travel through it. The further from the limits, the greater the resistance, on an asymptotic curve. Light could pass; soft x-rays were slowed and worked down to safe limits; gamma radiation was bounced back. Or, while something travelling only a few miles an hour, up to about fifty, met almost no opposition, anything having the speed of a bullet, or that of a concussion-wave from a bomb met an impregnable wall.

But all that was missing from this gun. There was only the offensive force—a simple means of projecting a beam of that static force at a variable speed, so that whatever it hit seemed to be moving toward it. At low speeds,

it could knock over or stun; at light speed, it could blast a hole through a mountain, with absolutely no reaction against the user’s hand. Theoretically, its range was infinite, limited only by the fact it travelled in a straight line. Since it wasn’t a true force, it actually required almost no energy, and could run for years off a tiny dry-cell.

On the back was stamped the serial number—a figure over forty billion—and the price—two dollars! Obviously, James’ weapon was being used generally, but not as it had been intended; apparently only the Iron Guard had the whole mechanism—if anyone had.

Damn the dictator who could pervert it to such use!

**T**OM BLAKE stopped, realizing he was damning himself; it made less sense than ever. All the rest of the indictment against the Bigshot had more sides; there was justification for erasing the brains of criminals and for sterilizing the unfit—and he had heard only one side, which might actually be a criminal side. The uniting of the world under one rule was something he had long dreamed of, and was certainly justified.

But such perversion of the weapon was another matter; it was something Blake felt he could never rationalize to himself, even if he lived to be a hundred.

And the morality bothered him. Obviously, prudery had been reintroduced, and carried to an extreme. He’d been puzzling over it, without too much success. For an absolute ruler, it might have its advantages; it would both serve to occupy a good deal of time and thought on the part of the masses, and impose limits on them, which the ruler would not necessarily be compelled to admit for himself. It would make them more subservient to authority. But it wasn’t the move of a man who wanted to improve the world.

Sherry came in, then, as if to prove his point. She drew a cot up beside him and lay down, fully clothed. He

noticed that her garments were fastened with a great many buttons, and without a zipper anywhere. His down clothes, when he looked, were as intricately fastened.

"Jed," she whispered. "Jed, I'm sorry I—I kissed you—in front of Rufe. I'm so ashamed!"

He reached out a reassuring hand, flame leaping up in his body again. There was something about her eyes and the way she avoided showing even a trace of her feet; and wrists...

She caught his hand, then jerked her own back. "Jed—not here. Someone might come in!"

Someone did, shortly after she fell asleep, while Blake was still twisting and turning in his own mind—if even his mind was still his own. He pretended sleep, when Rufe led the other up to him.

"You're crazy, Mark," the man whispered; "do you think Sherry wouldn't know her own husband?"

Mark was a young man with a troubled face and eyes sunk in their sockets under scraggly brows. He looked like early pictures of Lincoln, except for the incongruity of a short, stubbed nose. Now he shook his head. "I don't know, Rufe. I didn't quite like his response when I got out to rebuild his brain patterns. Sarnoff's switching minds—it's the only answer I can get to all the machinery he's using. And I think he may have been trying to run in a ringer on us."

"A spy?"

"What else. Probably one of those other men was from the Guard, and they switched minds. But still... well, I can't see Sherry sleeping beside anyone unless she was sure it was Jed! And I don't see why a ringer wouldn't pretend to remember everything, instead of admitting his mind is partly numbed—as it should be, after what hit Jed!"

"So what do we do?" Rufe asked.

"We don't do anything. We can't test him by having him shoot—that's conditioned reflex, outside his mind. We take him along, making sure he

doesn't meet anyone else until we break in. Then he either shoots the Bigshot—"

"Shh, Mark! Sherry's here."

"Sorry. Slipped. He either shoots, or we shoot him. With the only opening we can find, that first shot has to be good all the way across the chamber, before the automatics cut on the screen around him! Jed's got the only reflexes that can do it."

**T**HHEY WENT out, leaving Blake to his thoughts—which weren't pretty. He wasn't going to enjoy shooting himself on the amount of evidence he had; and he liked the idea of being shot at his present age even less.

They didn't sound like a criminal mob—nor even like one of the possible radical malcontent segments that might grow up in any government. They sounded, unfortunately, like honest citizens getting ready for another Lexington and Concord—the very type of citizen he had hoped to develop with his own ideas and James' gun.

But Tom Blake still couldn't picture himself as a monster. He'd spent a good many years under every sort of temptation he could imagine, and he'd grown steadily more convinced that the world belonged to the decent, normal folk in it—not to any Bigshot, including himself. He felt he should be able to trust himself more than he could trust anyone else in this cock-eyed age.



The trouble was that it was cock-eyed—and there was no reason for it. It should have been a utopia; why hadn't the later Blake given the defensive part of the gun out?

Or was that one under the control of someone else—the old man who had

been with Sarnoff, perhaps? The old man looked capable of anything, and he'd proved completely ruthless. If the real Thomas Blake of this period was simply a front, forced somehow to do the will of another other...

But how could he be forced when no weapon would hurt him?

•

Blake got up in the morning with his eyes burning from lack of sleep, and no nearer the answer than before. Under Sherry's urging, he began an hour of target practice, using the slowest "speed" of the gun; Mark had been right—his shooting was pure conditioned reflex, and hadn't been hurt by the change.

He'd reached only one emotional and one logical conclusion, and he mulled them over at breakfast. Emotionally, he wanted to get back to his own age somehow, to his own body—as he had to do sometime if there was ever to be an elder Blake. Logically, he knew he couldn't go, if he had the choice, until he found out the facts about what he had become.

But there were a number of questions that had come up as he lay tossing. He didn't believe in variable time—the whole theory of the stasis gun demanded a fixed, absolute cause-and-effect time-scheme in the universe, somehow; and the gun worked. That meant the elder Blake had been through all this before, and should know every move he would make. Why had he slipped through the fingers of the Sarnoff group? Also, if he did get back to his own time—as he had to, seemingly—how could he do anything about what he could become, even if the worst was true?

That night he was assigned permanent quarters—his old ones, apparently—with Sherry. There he found that some of her morality vanished, while some of his own got in his way, at first. And it didn't make it any easier to feel that she belonged to a crowd of criminals or crackpots when

his emotions began to become solidly entrenched in his head.

He was obviously falling in love with a girl who believed his highest mission in life was to shoot his older self!



**B**LAKE—OR rather Jed—was supposed to be a spatula man at the local yeast works, but he'd saved up three of his quarterly vacations to take a whole month off now. Sherry had done the same with her vacations at the fabric converter. As a result, they had time on their hands while the major part of the revolutionists were away at work; there were a number of places of entertainment, but Blake chose a newsreel theater.

He came away disgusted, and yet doubtful. All the old trappings of a dictator's propaganda bureau were there, with the usual justifications and arbitrary associations of words that had no real meaning. There was brutality enough. A revolt in Moscow against the local office of the State had been put down by Iron Guards, who moved about in complete invulnerability, using their weapons to stun the roiling crowds. There was surprisingly little bloodshed, though. But the scene where the prisoners were released mercifully back to their parents and friends was far from a happy one. All had been put through the mind-burners, and were back to the first days of infancy, mentally.

Still, there was a regular shuttle running to the Moon, and Mars was being explored. China, on the other hand, was starving; and obviously no attempt was being made to alleviate the situation. Apparently the State believed in letting local suffering go—

or perhaps had insufficient resources.

He guessed that the latter was the case, particularly when a new edict of sterilization was announced for Brazil, due to unchecked birth rates. The sterilization was painless enough, and didn't impair sexuality, but such blanket use could only come from sheer necessity.

The State was loose at the seams; disease had been conquered, and while the rejuvenation process was new, secret—and obviously forbidden for general use—the progress in gerontology and geriatrics had been amazing. In making the whole world one State, the birthrate of one section had simply flooded another, leaving no natural controls. There were no wars. Progress in foods had been good, but it hadn't equalled the birth-rate; there were over ten billion inhabitants of Earth.

Perhaps the new morality had been an attempt to check the birthrate, but it had failed; public morals can be swayed—private hungers only break out more intensely. Then, apparently, had come an increasing use of sterilization against progressive feeble-mindedness, physical hereditary ills, alcoholism, sub-normal intelligence, subversive tendencies, and so on up the list, until less than half the population could pass the tests. When India refused to use voluntary birth-control the first large use of the sterility process had been forced on her, leaving less than five percent of her people fertile. It hadn't helped much; China had immediately begun to flow over the borders.

And, inevitably, people suffered. Housing was bad—single-room shacks were common, except in what could be called the modern slums, thrown up to house hordes in worse conditions. Food was mostly synthetic now. The people lived poorly, even though they were on a twenty-hour week, and free to buy surprising types of luxuries at small prices.

The newsreel had referred to this as "the Period of Transition," but

there was no sign of it getting anywhere.

BLAKE CAME out shaken, unable to justify the results or to condemn the ideas behind them, completely. Back in 1960, it had been a simple world, with a few minor troubles; now, he wondered. Most of the troubles here came from the relief of those simple troubles there—and it was questionable whether the dictatorship had much to do with it, beyond attempts to cure the ills so obvious then. He suspected that the brewing revolution had more connection with the bad food and inadequate housing than the more obvious high-handed State methods.

He found himself liking the people. They were what he had always dreamed of—a group devoted to liberty, willing to sacrifice themselves if necessary, with an amazing respect for each other's rights. Out of them, conceivably, a new world could come—the world he had always aimed for.

Do nothing, Blake told himself, and the plot would fail. The rebels made tests of the gun's reaction-time, measuring the period between the instant that the peep-hole in the weapon's shield was uncovered to the moment when firing the gun would accomplish nothing. The period was too short for most of them to pull the trigger. He, in Jed's body, had been just enough better than the others to make it possible; no automatic device would work, because they had no way of knowing where the Bigshot would be in the single room where he apparently gave himself the luxury of going without his personal shield.

Do something, and he was killing himself—and perhaps ruining what was really only the "Period of Transition" they prattled about.

He got back to the little shack where he and Sherry lived just in time to see a new development. A wail went up along the street as a great

van drove up, and Blake stopped to stare at the miserable creatures that were piling out. They couldn't stand on their legs; their minds had been burned completely. And among them was Rufe.

Two fingers were missing from the gun-hands of each of them, cut off and already healing under the efficient modern surgery.

Mark met Blake and yanked him inside, where Sherry was crying. "We thought they'd got you. New orders. Not even the technicians at Sarnoff's know, but I saw a copy. All men with hairy hands are to get fifteen minute burns—enough so they'll never be more than morons, and we can't rebuild their minds. And—well, you saw the rest. Sherry, shut up! They didn't get him!"

"They will...they will..." She lay huddled for a second more. Then, as the van drove off, leaving the people to sort out their unfortunate friends, she dashed out to help. Her sobs drifted back to him, but didn't seem to hurt her usefulness in the crowd.

Blake went to the rickety cabinet where his gun lay and picked it up. Mark caught him. "That can wait. Come in here." Lather and razor were waiting, and he began shaving the back of Blake's hands deftly. "We can't do much of this—the others will have to take their chances. But we need you."

The anger wore off as the shaving was completed.

**M**ARK STEPPED back to inspect Blake's hands. "You'll do—Sherry can take care of it the rest of the time. Jed, I still can't trust you completely, but you've got to come through. Once we get the Bigshot, we can move on down the line. All the shields have time-limits built in—that's why we never got anywhere trying to get any for our own use. In two weeks, the second group will have to recharge the trigger-battery relay; only the Bigshot has the key for that. Another ten days, and

the third line drops; and it goes on down to the Guards. They have to get their shields set every day. Maybe a few of the higher group will manage to get guns from lowers they can recharge themselves—but their keys change automatically every period, so it won't help much, if we move fast. It all depends on your getting the Bigshot."

"You're going to have a busy time converting them or burning their minds," Blake guessed.

"Burning! Don't be a fool, Jed. We'll kill the bas—the sons! They've got it coming to them. And don't think we're just talking. The rebels, as they call us, outnumber the rest of the world five to one!"

Blake put the gun back on the table as if it had stung him. Killing off twenty percent of the population might help the crowding, but it wasn't his idea of a solution—particularly when a lot of the higher technicians, scientists, and coordinators necessarily belonged to the elite who owned the guns that were equipped with shields.



Anyhow, even without the shields, there were enough plain guns, and the whole State corps would have to fight back—those in secret sympathy with the rebel movement would be driven to it by self-preservation. It would be a welter of blood to make the worst war in history seem anemic.

"When?" he asked, finally. "The same date?"

Mark shook his head. "I got orders today. We move on the palace night after tomorrow—as soon as we can force through the passage we found on the maps and set up equipment to rip away the wall where you shoot. And you'd better shoot straight!"



**T**HOMAS BLAKE watched them assemble, while sounds from above-ground told him that operations were already in progress. They'd modelled their outward move on a slight improvement over the second revolt. It meant that a fair number of them would be killed in the criss-crossing of stun-blasts, but nobody seemed to consider that important.

It would at least keep all the local Iron Guard busy, and probably stir up their officers enough to disorganize the whole palace. There would be fighting on almost every street, and the bulk of their mob would be storming the palace itself from mined tunnels they were digging frantically. All was to be concentrated to reach its highest fury at precisely midnight.

"How do you know he will be there?" Blake asked.

Sherry looked at him in surprise. "He's been boasting for years that a clear conscience induces sleep, and that his puts him to bed at midnight every night. He'll never believe we have a chance until it's too late."

It sounded plausible; dictators usually showed their pride in just such stupid ways. Anyhow, Blake had to confess to himself, it was exactly the thing he'd been starting to say for the past year; he'd meant it as a joke, but such things became habits in time.

Yet he *must* know. Thomas Blake, the Bigshot, had necessarily been Thomas Blake in Jed's body forty years before. He'd heard every plan, and he should remember it.

Blake fingered the two guns he carried—one for any trouble on the street, the other for the coup they were attempting. He couldn't let these

people down. The honest desperation on their faces wouldn't permit all this courage and planning to go for nothing. He couldn't kill his older self and invite such a savage massacre as only the French Reign of Terror could match.

History was becoming clearer now. Blake's fine, free colonial people had been men of courage—and men of strong hatreds. They'd slaughtered the Indians just as readily as they had marched against tyranny. And even their opposition to tyranny had been founded more on hate than on any innate love of justice. Justice, in fact, had come about as a sort of afterthought—when the men they hated had fled or were killed.

He was sweating coldly in the dank basement under the old auditorium. Some decision *had* to be made; none was possible.

The ten in the execution-party moved out at last, trying to look like non-partisans caught in the whirls of the rising rebellion, and anxiously heading homewards.

Something struck against Blake's back, and he stumbled. His hand leaped to the gun at his waist instantly, and he fired before he was sure of his target. It was a head-shot, by sheer instinct; the blow that might have only stunned, knocked the man's head back sharply, until it seemed to dangle on his neck.

**S**URPRISINGLY, the weapons of the others echoed his—silent in themselves, but causing loud thuds whenever the beams hit. The surprise of seeing the whole group fire into their own crowd of rebels cut short the sickness that was rising in Blake. He turned, just as one of the black-clothed Iron Guard came up.

"Good shooting," the man said. "But take it easy. That first shot was vicious and we don't want killing. Here, bunch up. So—I think I can stretch my shield enough to give us all some protection."

Sherry looked up at him with

grateful awe written large on her face. "Thank you, officer. We were going home to my aunt's from a party—and then all—this happened..."

The Guard nodded. "It'll get worse, from what I'm told. But right now, I guess I can escort you a ways. Where to, ma'am?"

"The subway, I guess," she answered; "we'll be safer there than on the street, anyway."

The Guard nodded, and began leading them. Some of the force from the stun blasts got through, with the shield stretched out—a trick Blake hadn't known was possible—but it helped.

Blake caught at the man's sleeve while they waited for a yelling mob to dash by. "How do you get to be a Guard?" he asked.

The man looked around in surprise. "I thought everyone knew that, citizen. We're picked when we're in school—character, intelligence, all that. Then we get twenty years training in science, sociology, and everything else you can name. It's pretty tough, but worth it—except for these riots. There the mob has all the advantage—our shields don't protect us from stones and clubs, and we can't use lethal speed on our guns without special orders. Lot of the mob gets trampled on, too."

They were at the subway, then, and Blake started down. He jerked back at a sudden gasp, to see the Guard falling, his head bloody pulp from a sap in Mark's hand.

The leader of the group put the sap away, smiling in grim satisfaction. "Darned—sorry, Sherry—dratted hypocrite. I don't mind the ones that go around beating us up on the sly or giving us tickets for standing on corners. But these mealy-mouthed polite ones! Fpha! They're too good for us! Hey, Jed, what's the matter?"

Blake held back the retching of his stomach and forced a grin to his lips. "Too much Guard," he an-

swered, and saw an approving smile cross Sherry's lips.

He avoided looking at her then as they went down the steps. He'd heard enough to know that in general the Guards were like the one Mark had killed; they'd been conditioned into believing that to serve the State was all that mattered, but they'd also been taught manners, courtesy, and at least a normal consideration of the people under them. There was no more justice in Mark's words than in his brutal action.

The train was pulling in, and Mark waved them aboard. If the riots developed properly, it might be one of the last ones to run along on its rubber-insulated monorail.

They found their mistake too late, just as the door was closing. It was a Guard train, carrying prisoners back to the palace. Apparently the Guards who had taken it over had lacked the key needed to break the automatic controls that stopped it at every station.

They were inside before the Guards at the door could stop them. Mark yelled once, and began swinging the sap. Blake skewed sideways as the train started, to pounce into the stomach of an older Guard. He kicked at a shin, jerked around the pain-doubled man, and darted for a strap. His other hand found the big clasp knife that most of the men carried, and he dragged it from his pocket. The plastic strap came loose, its heavy metal hand-hold forming a perfect close-quarters club.

THIS WAS no time to argue about the right and wrong of killing Guards. His pacifist inclinations were intellectual, and his emotions had been well conditioned in two lives: Jed had been a natural brawler, and Blake had done rather well in the usual school and high-school fracasses. In a brawl of this side, the issues were simplified to the basic question of whose side you came in on.

The Guards were handicapped.

They were responsible for a group of prisoners, and their normal security was useless here, since all fighting was at close quarters, with weapons too slow to be bothered by their shields. The prisoners were naturally against them—and even handcuffed, their legs were enough to upset the Guards, while some of them were able to get to the doors and prevent men from joining the police force from other cars.

Blake swung out, protecting the rest of his party on one side while they cut their own straps. Then a pattern of general mayhem began; he felt a big fist jolt against his ear and reeled, but Jed's body was rugged. He swung a backhand that dragged the handle across the Guard's teeth with a crescendo clicking. It caught one of the prisoners on the follow-through, but the man cheerfully plunged into the pleasure of breaking the Guard's ribs with his heavy shoes.

The train slowed at another station, but nobody left; the Guards were jammed in, and the citizens were too busy. Blake's wrist was sore from the pounding when he finally switched hands. At the next station, they heaved out the unconscious Guards. Mark prepared to move back into the next car, until one of the other men caught his hand and pointed. Apparently, they'd reached their destination.

The closing doors caught Blake across the shoulders, sending him sprawling to his hands and knees. He saw that most of the party, including Sherry and Mark, were out, and then was up, dashing after them. Guards were pouring down the entrance, with a mob behind them. Mark yelled.

The group darted into the men's washroom. Sherry hesitated, but she swallowed her inculcated prudery and followed them. The door shut with a sound that indicated a lock had already been added to it. Mark knocked on a white panel, and it swung open.

"Clear sailing," he told them, breathing harshly through what remained of his teeth. One eye was swelling closed, and his lip was smashed, but he obviously didn't feel it. "Good work, Jed; I guess I was wrong about you, at that. Well, we're under the palace!"



**W**ITH THE two who had been waiting in the tunneled passage from the washroom, there were nine of them now. Nine men to end the tightest rule any man had held on the planet—and uncounted millions outside serving as a screen for their operations.

For a few minutes, all Blake's doubts had been settled, but they came back now.

"Two minutes, maybe," Mark announced. "Lew, you come with Jed and me. The rest stay back."

"I'm coming," Sherry stated. Her glance at Mark was defiant, and then surprised as the man merely shrugged.

Two minutes to make up his mind. Blake couldn't even get his ledgers out for a book-balancing in that length of time. He'd posted too many entries in the day-book, and the whole business needed a complete new audit. But now it boiled down to the simple question of whether he *could* kill himself—even if he decided he *should* do so.

He thought he *could*. He'd always been sure he could commit suicide for a cause he believed in, if necessary—and this was the same thing, with a forty-year lapse between pulling the trigger and dropping dead.

The passageway was crude, and they stumbled upwards slowly. They were obviously inside a wall, where tamped earth had been used to fill the space left by the masonry. It

was thick with age and dirt odors, and Mark's flash barely lighted their way. They crawled up now on their hands and knees. Then a bulky piece of machinery appeared ahead, facing a blank stone wall.

Lew went to it. "All tapped. If we aimed it right, this should pull out the plug left, and there'll be a hole big enough to shoot through. Better get used to the light, Jed."

Blake focussed his eyes where the flash was, while Mark brought it around until it rested on the plug that the machine was gripping. Lew touched a button, and the machine whined faintly.

For the moment, he had decided. On one side was courage and devotion; on the other side, retreat and aloofness behind thick stone walls. When in Rome...well, it was as good a rule as any now. And maybe he was only doing it to convince himself he had the courage to fire at himself.

The plug popped out and sidewise, leaving a six-inch opening. Blake got a quick view of a tremendous room, at least a hundred feet long, with a bed at the far side. On the bed, stark naked and asleep lay the older man who had been in Sarnoff's laboratory—Thomas Blake the Bigshot. Tom Blake N. He should have guessed!

The gun was already up, and swinging into position. His thoughts seemed to have swivelled off into a dimension where time was infinitely variable. It wouldn't be hard now. The man had already proven his duplicity, had tried to wipe out his own younger self. Why shouldn't that younger self eliminate him?

"He's naked!" Sherry's horrified whisper sounded beside Blake's ear, just as the trigger came back.

It was a clean miss, he had jerked at the last split second.

**H**ELL EXPLODED inside. Gongs sounded, and Guards came pouring out of every cranny, while

the old man sat up, staring quietly at the hole in the wall. His old eyes found it before the Guards did, and he pointed.

Mark let out a yell, and pushed the other three ahead of him. They went sprawling down the tunnel, just as a tremendous thwack reached their ears, what was left of Mark fell past them. Sherry was ahead, and Lew behind. Blake started to look back, but he had no need, another sound broke out, and half of Lew's head went past his ear, spattering gore.

Then they hit a curve in the tunnel. The big booming of the high-speed stasis guns went on, but they were simply cutting holes through the palace now, unable to locate their targets.

They hit the washroom, charging through those who had waited behind. The lock was stuck, and one of the men was working on it. There was no need to report the results to anyone—Sherry's face gave that away.

She was sobbing and cursing herself in the same breath. Then she met Blake's eyes hopelessly, with the expression of Judas the day after. He started toward her, but she cut him off quickly. "We'll have to split up—they saw us together, up there. I'll be at the cellar—where they brought you back—tomorrow!"

The door finally came loose, and she darted out. He could sense the feelings in her, but there was nothing he could do. He let her go, giving her time to get away, before he sped up the steps after her. The station was almost deserted, except for a dead Guard and several badly wounded citizens.

Behind him, the sound of the stasis guns came again, indicating that guards had broken down through the tunnel and were after him. He sped up the stairs, expecting to find the street, instead, he came out into a monstrous hall, crowded at the entrance by a mass of guards defending a big gate which

had dropped. Blake raced up the hall, swinging off at the first stairway. He cut down another hall, and darted into a room at random. There was a fat dowager inside, stripped to ankle-length pantaloons and camisole, but she gave no trouble; she simply fainted.

On a dressing table, he spotted a gun and picked it up. There were stasis screen controls on it, but a series of buttons along the side indicated some sort of combination lock—which explained why the citizens didn't bother to fool with them; they probably were set to explode on tampering.

He dropped it and went through the back of the suite. There windows opened on a closed court. It was a drop of no more than ten feet, and he took it. One set of windows was dark. He kicked through one of them, and banged his head against something hanging from the ceiling. By the dim light of the red and green lights on a control panel, he suddenly recognized it as the laboratory of Sarnoff.

**H**E KNEW the way out, now—and one which was probably less besieged than others, simply because men avoided something that was a chancre in their minds. But he halted suddenly, moving toward the control panel.

Blake was right—there was a scattering of tools in a drawer under it, and barely enough light to work by. He yanked out the two guns and opened them; they were familiar enough—mere simplifications of the complete models his brother had made.

Blake ripped the tiny coil out of one hastily, and fitted it into open space in the other. There was room enough. He found small screwdrivers and began working on the adjustments to the coils, hoping that the numbering around the slots was the same. Alpha 10 changed to Alpha 2 to give a protective sphere instead

of an offensive beam; beta 5 would regulate the speed which would be denied penetration; delta 7 should be about right for energy penetration. He checked that, setting it up to 9, until the green bulbs seemed to come down to the red, and back to 7. Apparently, there had been no basic change in the little coils, and offensive and protective coils were still the same, except for setting. He found contacts within the gun for the second coil, indicating that both models were made from the same basic parts. He had to leave the defensive coil on, since he could find no way of installing a switch.

If his settings were right, he was now safe from bombs and bullets, though a club or a knife would kill him as easily as before. But the main problem was the offensive beams from other guns, and there a rough setting would cancel it out.

He shoved the gun that was now complete into its holster and headed toward the entrance.

From the side, a quite voice reached him. "Nice work, Thomas Blake!"

The lights snapped on to show Sarnoff standing expressionlessly beside the main door.



**S**ARNOFF nodded toward the gun that had snapped out in Blake's hand. "It probably works now, just as you expect. But it wasn't that which gave you away. You might as well put it away, anyhow; naturally, I'm shielded."

Blake had already realized that, from the gun on the other's hip. He dropped his own back, trying to estimate his chances to reach the other before the man could get out the door. It seemed impossible.

Sarnoff nodded again. "You're

right; you couldn't make it. I've been ready for you since you tripped the alarms getting in here. I could have shot you while you were working on the gun, you see. But naturally, I didn't."

"Naturally."

"Certainly; why else do you think I faked the last half of the mind burning? I'm all in favor of your living. I'd hate to try to figure out any system of logic that would permit you to be killed without ruining most of the life I've led these last years. Anyhow, I always back the winner."

Blake let it sink in, and began breathing again. "You mean you're on the side of the rebels?"

"Hardly." A trace of a smile flickered over the other's face and vanished again. "I'm on the side of whichever one wins, though that's rather obvious, if you'll use your head. I fish you out of the past for your distinguished senior self—and I make sure that you go into the head of a man the rebel spy Mark wanted saved; he can't prove I'm on his side, but he suspects so—particularly after I showed him the rough diagram of the restorer a year ago and never noticed the parts he stole."

"Mark's dead," Blake told him.

"I know—he was a fanatic, so of course he's dead. But he wasn't the leader of the group anyhow! I have my connections, still. I'll come out on top—as a realist always will, unless he's a deliberate villain which I'm not."

"All right," Blake conceded wearily. He had no time to talk of idealism and realism now, when his first job was to escape long enough to locate Sherry. "So what happens next?"

Sarnoff shrugged. "So you go out the door, I suppose, and into the arms of the Guards who *are* there—or down this little private stair to the subway station, where you'll never be noticed by now. And I report to your rebel leaders—whom you don't know—that you are the original Blake,

complete with all plans for the James Blake statidyne gun."

Blake turned toward the little private door, and was almost surprised to find that there was a stairway there. Probably most of the so-called "public" sections of the palace had such exits.

Sacnoff's voice halted him. "Not a louse, Blake," he said quietly. "Just an opportunist, like every successful animal up the long road of evolution. And paradoxical as you may think it, I privately wish you the best of luck. I've thoroughly liked your senior self, and I would probably like you. Take care of yourself."

The laboratory was suddenly dark. Blake stumbled down the stairs, to find that the riots were nearly over, and the subways were running smoothly again. Guards were patrolling the platform, but the monotrain was already in. For the third time, Blake barely made it before the door could close.

HE GRINNED bitterly at Sarnoff's words that were still ringing in his ears. It wasn't hard to tell who'd lose, at least; Blake had forty-three cents to his name, and knew nothing about the city. The State wanted him as an attempted assassin. Now, with Sarnoff's spreading the good word, the rebels would be looking for him as a traitor to them, and the very man they most wanted to eliminate from all history. It wouldn't do to argue immutable time with them, either.

He was safe from bombs, bullets, and guns—but there was always the knife. And when she found the facts, even Sherry might be happy to use it.

He should never have been stampeded into mob action—his reason for killing the Bigshot because of the first meeting was no more valid than the Bigshot's reason for trying to destroy him in self-defense. And now that he cooled down, he could never take the secret of the guns to the

rebels. There had been blood enough shed, without putting them in a position to exterminate all the other side.

He never knew exactly how he managed to get through the night. Time after time, he saw Guards or rebels patrolling, and he suspected most of them were looking for him. Probably the complete dejection and the slowness of his walk saved him, they must have been looking for a man who was skulking up dark alleys, or running from them.

He found the house where he had first come to in the cellar by sheer hunt and try search, though he knew the general location. It was locked, of course, and he realized suddenly that he did not know the secret for opening it.

But he was tired of running, and a cellar door in the shack across the street was open. He crossed to it, and went inside, leaving the door open a crack.

Daylight crept through the opening, and reached the full brightness of noon. There was no sign of Sherry. Above him, he could hear a family stirring over their noon lunch, discussing the riots. Apparently they had been involved only indirectly, but there was enough misery in their guesses as to how many of their friends would be picked up and mind-burned.

At four in the afternoon, Guards came and broke in the house where the place of meeting was. They scoured it thoroughly, then posted it.

Blake knew that Sherry hadn't told on him—she should have, if she'd heard the truth about him, but he was sure somehow that she would never turn him over to the Guards. He also knew then that she'd never keep the rendezvous.

He buckled his gun on more firmly, knocked the dust off his knees where he had been kneeling, and stood up. The cellar door creaked as he went through it, but the Guards did not look up from their duty. Blake

crossed the street and went up to them.

"If you're looking for a lady, she won't be here," he said, and only the deadness of his voice registered in his own ears.

The younger Guard growled impatiently. "Scram. We know what we're doing!"

"Dan!" The senior Guard glowered at the other. "That's enough of that. Citizen, the State apologizes; but I'm afraid your information is already in the papers, so we do know about it."

Blake nodded, and shuffled off down the dingy street. He found a newsstand and put down a coin for one of the papers he had managed forty years in the past. It was thinner, due to the paper scarcity, but the lack was mostly in the advertising. He had no trouble finding the story.

Sherry was dead!

She'd been found by the Guards early in the morning, with a printed label claiming she had betrayed the cause by ruining the shot. It was clearly murder.

**H**E MIGHT have guessed. The hatred that had flowered so long had to take root somewhere, and she had been as good a scapegoat as any other, Blake supposed. He dropped the paper into a can without bothering to read further. He'd seen that she was being kept at the palace morgue for the claiming of her body.

They'd dragged him into this crazy future to keep him from killing himself, by a tortuous logic of their own. Then they'd tossed him to the other side, to force him to kill himself. Now, the only good thing he'd found was killed, and nothing else had been accomplished. No paradox had been solved; but if the Bigshot remembered when he had been dragged here, he could have saved Sherry, at least.

Blake saw another of the Guards on the corner, and approached him quietly. "Where can I find the subway to the palace?"

"To your left three blocks," the Guard answered absently. Then he looked up, reached for his gun, and moved forward. "Your identification papers, citizen!"

"No matter," Blake told him. "I'm the assassin!"



**B**LAKE SWUNG on his heel and headed toward the subway. He didn't bother to look back at the faint sound of the gun being drawn. Either his shield worked, and he would have no way of knowing whether the man fired, or he'd find out soon enough. Nothing happened.

Then the Guard was running up to him, white of face, with the gun shaking in his hands. The man stuttered as he grabbed for Blake's arm. "You're under arrest!"

"All right," Blake agreed. "I'm it; now you go hide."

He walked on steadily, while the Guard pawed at his arm and then desisted. Physically, he was more than a match for most of the Guards, and their superior weapons had lost all superiority. Blake could have watched the whole civilization shatter and have cared as little as he did for the shock on the other's face.

He found the subway entrance while the Guard was tardily blowing his whistle. He was beginning to think the trains ran every fifteen seconds, since one was again waiting. He climbed on, with the puffing Guard at his heels. "You'll get used to it, whatever your name is," he told the other.

"Colton," the black-clad man told him unhappily. "And why couldn't you have picked someone else? I broke a toe and got a brick over my head last night. Today—you!"

"Tough. I guess you'll just have

to string along until we find some of your buddies to subdue me, Colton."

Colton nodded glumly, and they sat in silence while the quiet train moved along. Blake was emotionally numbed, and the problems that had bothered him were operating only on a semi-conscious level.

No man, he supposed, could really accept predestination. The idea was something that could be agreed to on an intellectual level, but inside a man had to feel that he decided things for himself. Actually, there were no paradoxes; everything was decided, and things didn't happen because of either his actions or those of his older self—they happened only because that was the way they happened. The Big-shot was no more responsible than he was.

It wasn't hard, when you considered things carefully, to see why he'd tried to eliminate his younger self and put himself out of danger. Intellectually, he might realize nothing he did could alter the fabric of the events that must happen, but emotionally he couldn't stand by—and his logic was as much shaped by emotions as by facts.

And even explaining why he did things was a refusal to accept predestination, Blake knew. Looking for the reason behind his own or any other man's actions meant an attempt to see why something happened or didn't happen—and there was no real "why" in a universe on a fixed time-track.

He got up at the palace stop and went out with Colton at his heels. The Guard again reached for his whistle, but stopped when he saw Blake head for the door leading to the stairs that went up to Sarnoff's laboratory. The door was locked, of course, but a blast from the gun opened it.

**S**ARNOFF was opening the upper door as Blake came to it, and he motioned the two men inside. "I heard you break the other," he explained. "I've been expecting you.

Guard, there's nothing you can do—your prisoner's as untouchable as I am."

Colton shrugged, but stayed.

"Where's Sherry's body?" Blake asked woodenly.

Sarnoff moved toward the end of the room, where a couch had been brought in. He lifted the sheet silently. "She's in good hands, Tom," he said softly. "She was my daughter, though you wouldn't know that. And she hated me, long before she ran away to join your group. I used to wonder, once in a while, what happened to her. Now—I know."

Blake looked down at the still figure. Sherry still bore the look he had last seen, though her eyes were closed. Her clothing was in place, he noticed, with even her toes concealed. He was glad of that.

"She must have hated me," he said, at last.

Sarnoff shook his head. "No—she never knew; she was dead before I passed the word about you along."

His expressionless face studied her body, and then he drew the sheet up.

Blake sighed softly, and turned toward the entrance to the main palace, with Colton still at his heels. Sarnoff shook his head slightly, and moved toward another door, waiting for them until Blake shrugged and climbed into the little elevator. Then Sarnoff pressed the top button, and they moved upwards.

There was neither austerity nor over-lavishness to the private part of the palace. Blake took it for granted; he'd been brought up to have good taste, and becoming a dictator hadn't changed that.

There were a few men in the outer office, but they left at Sarnoff's motion, retreating into a second room beyond. Here and there along the walls were niches where Guards might be stationed, but Blake could see no sign of them—they were at least well hidden.

Sarnoff picked up a phone from a desk and pressed a button. "Tell his

Excellency I have the assassin," he said. Then, after a moment, he turned back to Blake. "We'll have to wait. He's taking a bath—or calling his top Guards. He's grown nervous, these last few days."

Blake dropped to the seat behind the desk. He picked up a volume there, saw that it was a leather-bound biography of himself, and started to put it down. Then he opened it and began scanning it.

There'd been war, after all. He'd had to wait two terms as Governor to become President, and then it was only a few weeks before the hydrogen bombs fell—too little time to prepare. He'd saved most of the cities with his large shields, but the terrible days had made an absolute dictatorship necessary; and through that, it hadn't been too hard to conquer the whole world, given both large supplies of bombs and a base immune to the bombs of others. Blake skimmed on, surprised to see how often Sarnoff's name cropped up. The man was obviously far more than a mere scientist.

And there was another name that meant nothing. Ainslee seemed to be almost as important as the dictator, though the people never had mentioned him.

Blake put the book back, just as the phone buzzed and a group of Guards in spotless white uniforms came out. Sarnoff motioned them aside, and they fell into step behind as Blake headed toward the door. Colton started forward, and then shrugged helplessly. He turned back slowly, probably to return to his beat.

This was it, Blake told himself. This was the point toward which the whole silly business had been driving. It seemed almost anticlimactic.

**T**HIS BIGSHOT sat at a small desk, surrounded by his Guards. He was probably shielded, but he seemed to have less faith in the shield than it deserved. His voice as nervous as he rearranged the papers before him,

and some of the power seemed to have drained from his face. But he gathered himself together.

"You are charged with an attempt to assassinate your rightful ruler," he began.

Blake cut him off. "I'm here by my own will—as much as either one of us can have a will. And I'm shielded; I combined two of your citizen guns into the weapon James invented—the weapon on the papers in the secret drawer of my desk."

The older man sat stiffly for a long minute. Then he put down the papers he held. "So all my efforts go for nothing? Your brain wasn't exterminated. But there are still enough men here to overcome you physically, even if you are shielded."

"It won't work," Blake told him. "It's all happened before, from your viewpoint; and I suggest that you dismiss the Guards."

The Bigshot nodded. "Guards dismissed," he said slowly. They stared at him, but slowly withdrew, leaving only the two men who were both Thomas Blake and Sarnoff behind.

Theoretically, there was no way to end what was now a perfect stalemate—except that the Bigshot could always call back his Guards to batter Blake down with their fists; there was no way in which he could win.

But he had revolved all that before, and knew the answer. He knew that in this case, his decision to accept the facts would inevitably create those facts—so far as even the decision was his free will. Predestination seemed to be working, and that would make the decision something he had no control over, too.

"You lost," Blake told the Bigshot. "Every step shows that. If you hadn't lost—if your younger self, when you stood in my position, here—hadn't remembered that you lost, you wouldn't have gone to the trouble of getting my mind drawn here to attempt to exterminate me. I should have seen it sooner, but that doesn't matter; you have to lose."

"If I hadn't taken on Ainslee..." the Bigshot began, but his face was drawn now.

"There aren't any 'ifs'." Blake told him remorselessly. "You lost. You're fighting with no hope at all. You can try anything you want to, but the end is already written; you lost."

He had no idea of what would happen, and yet he knew it was inevitable. Then, slowly, the answer came. He should have seen it from the beginning. No man can accept predestination within himself—yet the Bigshot knew now that there was no answer save predestination. He had to solve a completely impossible problem, and no mind could stand that.

"You lost." Blake repeated it, emotionlessly; "you lost."

And slowly, the Bigshot crumpled. He dropped his hands on his knees, and then brought his head down against them, sobbing softly.

Sarnoff stepped in quickly. "Stop it, Tom. Stop it. You don't have to solve anything now. It's all over; you don't have to solve anything."

The Bigshot looked up then, with tears streaming from his eyes, staring forlornly at the two men. "I'm lost," he said miserably. "I don't like this place. I don't like you. I want my mama!"

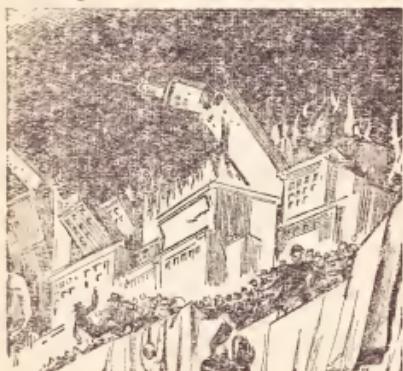
Blake turned to the window, while Sarnoff led the Bigshot out of the room. There, forty years from now, was the end of his own plans—the reward for all his hopes and struggles.



**S**ARNOFF found Blake finally, down in the laboratory, lying on the cot where his mind had first come into the future.

"The council of the head Guards and the rebel leaders want you, Tom,"

he said quietly. "They've already published the plans for turning two of the citizen guns into a single complete one, in case your curiosity is still working."



Blake nodded. He'd asked for that—the only thing he could do for this tangled future; his decision was the only one he could make. Human nature couldn't be changed, and compulsory improvement was something which might or might not be good. But no society could be healthy where one group enjoyed a terrible power that the other group could not have.

There were guns enough for all to make the conversion—and that way, the fanatics would find the rest of the world shielded by the time they got their own shields made and were ready to go out killing or converting others. It was a problem that had always plagued him somewhat, since a total weapon in the hands of a crackpot could wreck incalculable damage if there were others without such a shield.

His only function, after all, had been to make sure that his original plan went through—that all men had such guns. It had been his basic motivation for going into politics, but it had only succeeded when he'd driven himself completely out of such politics.

"I suppose you'll be the next dictator," he told Sarnoff bitterly.

"Pro-tem president," the man answered. "But only pro-tem; I prefer

to have Ainslee take over, if anyone has to. There's no real advantage to absolute power, and I'm still an opportunist. I'm in solid—but behind the scenes, where I'd rather be. I suspect we're in for a period of democracy, anyhow."

They'd have to be, if Silas McKinley had been right—and for a long, long spell of it—at least until something greater than the stasis gun and shield could come along.

"Then send my mind back," Blake decided. "They can get along without me."

Sarnoff began moving the machines along their tracks. And the sight of the action suddenly focused Blake's thoughts on what the return would be like—and the paradoxes his own inability to accept predestination involved.

He couldn't be such a fool as the Bigshot had been; with all he remembered, he *couldn't*.

"This body will be left a complete idiot, of course," Sarnoff said. "But your mind should snap back to your own body—and if I'm right, it will be only a few minutes in your time after you left. There's no real time-barrier for the mind—and no reason to expect the time spent here to be equalled by elapsed time in a trance back there. Maybe you can help by focussing your thoughts on when you want to return; I don't know."

Blake had wondered about that. He tried to think of his body just after his mind had left it, while Sarnoff adjusted the mind-burner. Then, without preamble or wasted farewells, the scientist depressed the switch.

For a moment, it was horrible, as it had been before. Then the full power seemed to snap his thoughts out into a roaring nothingness. Something pulled at him. Unlike the force trip into the future, the move back was almost instantaneous.

**T**HOMAS BLAKE found his arm half-way to the light switch. He

dropped it, and looked at the clock; but the faint sounds of the party still going on downstairs convinced him. He was back in his own world—and almost no time had elapsed there.

Sarnoff, Sherry, assassination...

He could feel it slipping from him. There was no machine here to intensify his thoughts, and to force them onto his brain cells and channel them into his permanent memory, as had been done by Sarnoff when his mind first touched the brain of Jed.

And the brain cells could not absorb what had happened during long days, now in these first few seconds of awakening. But now, whatever his mind-matrix was, it was slipping back into relation with those cells. It was like a dream that seems to be completely intense and to span hours, but which slips out of the mind, almost as soon as that mind awakens.

Blake jumped for the wire-recorder, and began spouting the bits he still remembered into it, before they could go. But he found curiously little to dictate; he'd been in the future where he'd tried to kill himself. There'd been a girl named Sherry. And he'd had hairy hands—aside from that, he had no idea of what he'd looked like. He'd never seen a reflection of his face.

He dredged up other bits, but most of it was gone, except for the general realization that it had not been a dream. But what he had dictated was still more than he could have remembered—it was already more than he sensed he had known as his older self.

Then he glanced down to see that the recorder was still turning—but without effect. He'd forgotten to replace the spool of wire!



Gideon Pierce came into the office of Governor Blake, shaking his head. "You were right, Tom. They had a deal cooked up, just as you thought; I must be getting old."

Blake grinned at him, but he secretly agreed. Pierce should have spotted the opposition move. In time, you could get used to such business, and learn to expect the moves before they came. He'd have to watch Pierce from now on; the man had been loyal enough, but still...

"Well, Blake thought, *I'm not naive any more. Idealism is a good thing, the only important thing. But a man has to be a realist, too.* Like that business of the gun James had invented. It had to be given to the people, of course—but they had to be protected from the crackpots who might seize on it first. It was a problem and one that could only be faced realistically.

"Forget it, Gideon," he said; "we all slip sometimes. Go back down there and keep them whipped into line. We've got to put that across, if I'm to get the nomination for President this time."

He watched Pierce leave, and consulted his calendar. There was only an appointment with the mathematician—a brilliant man, even if a bit too starry-eyed. Still, if his theory of cause and effect could be proved, it should make a difference. It began to look as if all the predestination he'd been worrying about was as much nonsense as the argument about how many angels could dance on the head of a pin.

But that appointment could be postponed. He flipped through his book, until he came to another name. Then he reached for his intercom.

"Call up Professor Houton, Miss Brightley, and ask him if he can change that appointment to next week at the same time," he instructed. "Then get ahold of Ainslee—you have his number—and tell him it's urgent I see him this afternoon. As soon as he can make it."

Ainslee should be a good man to replace Pierce. A little cold-blooded, perhaps but he got things done....



Novelet of Tomorrow's Frontier By Dave Dryfoos

# BLUNDER ENLIGHTENING

On this world in the system of Altair, Sam Sarno and his wife encountered something humans had never dreamed of. They were prepared for alien life that might be hostile, or fearful, or any variation in between. But the beings here simply and flatly ignored man . . .

**T**RUDGING homeward over the rolling prairie of planet Altair 3, bright Altair itself sinking swiftly behind him, his shadow lengthening in front, Sam Sarno let his head hang, his shoulders sag, his feet stumble heedlessly among the mossy tussocks. He was tall, blond, husky, and rugged-looking; yet he walked like an old man. He knew it—and for the moment didn't care.

He'd spent the day ranging through a native garden now out of sight to the rear, clambering up and down a high granite cliff that overhung the garden. The exertion hadn't exhausted him—he was young and athletic.

The planet Altair 3 was strange and virgin to human beings. Unknown, unrecognizable dangers might be hiding behind the nearest bush, lurking under the ground, infesting every breath of air. Sam Sarno had been especially selected and trained for duty in such places, was mentally and temperamentally prepared for the strain. Beyond routine precautions drilled into him till they were second nature, he took no heed of hazards.



It was defeat that bowed his shoulders—the complete, utter, incomprehensible failure that his excursion had been. He felt weighted down by shame, crushed under the need to admit once again that he'd gotten exactly nowhere in his efforts to contact the natives.

He didn't know what to tell Sally, his wife; he couldn't understand *why* he'd failed. The situation was clear-cut; the prescribed methods of dealing with it, infallible. The rock-paintings on the cliff behind him proved the existence of a culture here, and Sam had been trained to make swift,

smooth contact with cultured non-terrestrials.

Those paintings were really something, Sam admitted to himself. Seen from the ship that had brought him, they'd seemed grander than any works of graphic art on Earth; and a closer view confirmed their merit. Huge, they were: colorful, abstract, harmonious—obviously the creations of intelligent beings.

Because it is comparatively easy to see through an atmosphere from the top down he'd been able to observe the painters at work, even while still aboard ship. They were odd-looking creatures: small, dingy, grotesque—but cultured, just the same.

It was then that he and Sally had been given the job of contacting these painters; marooned here to live with them for six months; ordered to make an anthropological study of their culture before announcement of the planet's discovery led to an influx of traders who'd bring in new products and methods, missionaries who'd bring new ideas.

Sam remembered how honored he and Sally had felt when they got their assignment. It was their first major one; and, as he had to admit, easy as such jobs go—especially since neither weapons nor factories to make them had been seen from the ship.

That is—it *should* have been easy. Altair 3 was in many ways comparable to Earth. Size, mass, radiation received, length of day, chemical composition—all were similar. The Universe having been created all at one time, evolutionary forces must have operated on Altair 3 about as long as on Earth—should have gone about as far. By rights, a terrestrial man should have much in common with these natives; contact ought to have been quickly established.

But it hadn't been. Today, as on all previous days, the natives had completely ignored him; Sam couldn't see why.

OF COURSE, the painters, now—and there'd been three of them again today, at work on widely-separated ledges along the granite escarpment—the painters might possibly have resented his intrusion while they labored. They'd been busy enough, clinging there high above the ground, hanging on with all four feet, spreading with the fingers of both hands the pigments held in gourds suspended from prehensile tails.

They looked like unintelligent bugs, with their oily, lozenge-shaped exoskeletal bodies, only three feet long. Still, they were artists, beyond any doubt. They might be not only intelligent, but temperamental; maybe that was why they'd seemed to look right through him after he'd risked his neck climbing the cliff to get near.

They had eyes, though; the nature of their paintings made it clear that they saw the same things Sam did. And anyway there was no such excuse for that other native—the one who'd been standing in the garden below the cliff. Just standing around, it had been, rubbing its three-thumbed, five-fingered hands together, not doing a thing. Yet that one had ignored him, too.

The whole mess was completely frustrating. Sam almost wished the natives had been hostile, or thievish, or frightened; then he'd have known what to do. But never, on any of the sixteen extra-solar planets previously visited, had terrestrial man been simply ignored; it was unbelievable. And Sam would be blamed for it.

No use dwelling on that, though; no use letting Sally see how dejected he felt. Topping the last rise, Sam consciously squared his shoulders, even broke into a shambling trot for the last hundred yards to his prefabricated shack.

Sally waited at the door, dark hair carefully brushed, disposable dress new, full lips brightly tinted. These past few months she'd seemed to

grow even prettier than she'd been before.

But her eyes were heavy. Sam often felt—and often said—that his wife's blue eyes were so big, anybody could see through them and tell what she was thinking. Right now, he was sure, she shared his sense of failure.

He kissed her without a word. Then he admitted, "No luck, hon... Anything new here?"

"Ants," she said, closing the door behind him. "Not real ones, but something like. I followed their trail back to the nest. It was like an ant-hill, more or less. Social. Cooperative. They seem to like sweets and dislike water. Anyhow, I swept them out and set the table-legs in water filled cans."

"Lifted the table? In your condition?"

"Exercise is good for expectant mothers," Sally said, somewhat mockingly. "I can show you where it says in the book."

Suddenly she cast herself heavily to the cot. "But," she said. "But, Sam—worry isn't good for me..."

"No." Sam walked up and down, accurately gauging his stride to the tiny room. "No, worry isn't good, and you know that; so not only do you worry, but you worry about worrying. And I worry about your worrying about your worrying. Where does it get us?"

"No place," Sally said flatly. "That's why I've quit; I'm through worrying about our mission here, our careers, or anything else except our baby."

**S**AM TRIED not to show how disturbed he felt. "That's normal, dear," he said. "They probably expected this would happen to you; that's why they're bringing the ship back in another four months. I'll attend to everything, meanwhile—you can just take it easy."

"No, Sam. You don't know what it's like, to be left alone all day. Sup-

pose those ant-things had been poisonous?"

"But they weren't! You're borrowing trouble, Sal."

"You mean you don't care what happens to me?"

"Of course I care, dammit! That's why I'm working so hard! You know perfectly well that the discovery of this planet will be announced before the ship comes back here. Traders and explorers will be here long before substitutes can be found for us. If we don't do the job we were sent here to do, nobody will—and maybe you don't think we won't be fired for that! I'd be lucky to wind up in a dull, routine, underpaid rut as a terrestrial school-teacher, or something!"

"I don't care! I don't want to be left alone here ever again! And I can't go walking all over the place, either!"

No, of course she couldn't... And it was, Sam thought, normal for an expectant mother to make unexpected demands. Should he humor her till the storm blew over? Or put his foot down now? He tried a compromise—reasonableness.

"If we don't make friends with the natives," he said, keeping his voice low and earnest, "they may decide we're enemies."

"Maybe they already have," Sally burst out; "maybe their ignoring tactics are just a blind, while they gather forces. Maybe—maybe if you knew what it's like, puttering around here all alone every day, you'd stay home once in a while."

She began to sob, and Sam tried to comfort her, sitting beside her on the cot, stroking and kissing her, murmuring reassurance into her pretty pink ear.

But tenderness was not enough. The flow of tears would not stop till after he found himself promising to stay home and let the natives go hang.

"And I mean it!" Sally insisted, sitting up and pushing damp hair out

of her eyes. "Let them come to us, if they're interested."

"Sure, Sal. Whatever you say," Sam answered. Anything to make her quit crying. Anything! "Tell you what," he added. "I'll build a fire outside and cook up a barbecue. How'd you like that, for a change?"

"Don't go too far away after fuel," Sally said dully.

He didn't. He made a point of bustling into the shack every few minutes on some inconsequential errand, loudly whistling and singing as he trotted around.

But Sally was having none of his elaborate good cheer. She lay on the cot and stared at the ceiling, movingly pale and listless.

## S 2 S

AM COULD think of nothing to do but keep busy. Besides, the day's activity had given him an appetite.

He started a fire, using a chopped-up crate as kindling, and threw on some dried-out local vegetation to make coals. From the cases of food, piled next to the shack for want of space within it, he dug out a tinned ham that had been saved for a holiday treat. Then, while the fire burned down, he concocted a spicy barbecue sauce and got the side dishes ready.

When finally prepared, dinner included soup made of local water and a dried mix; broiled dehydrated potatoes; ham, and the remains of a prepared-mix cake Sally'd made the day before. Sam found he'd forgotten the vegetables Sally needed, and shanefacedly made up for them by giving her an extra vitamin-pill.

Even without vegetables, the meal was a feast, compared to their usual fare; to top off the occasion, Sam

had put decorative candles on their small folding table, and set the places nicely. But Sally ate only enough to be polite, and then, complaining of a headache, went right to bed.

Her apathy was infectious. Sam washed the utensils in a bucket at the nearby creek, sloppily, and dried them over the fire to kill any strange organism picked up in the washing. Chores finished, he didn't know what to do with himself. The meal, he felt, had been as much of a failure as the rest of the day's efforts.

For lack of anything better to do, he got out a flashlight, and in its brightness extracted a chocolate-flavored ration-bar from an opened case. Then, after unwrapping it, he found he had no appetite for chocolate, after all. He stuffed the bar uneaten into a pocket of his jacket and wandered aimlessly up and down in front of the shack, staring at the strange constellations overhead, and testing how far he could see along the moonless landscape under the faintly-glowing permanent aurora, so much brighter here than on Earth.

Back toward the granite cliff, whose top, a good mile off, showed dark and jagged above the plain, was a moving shape; a native. Sam had never before seen one at night, and watched closely to determine if it were approaching the house.

It wasn't, he decided; it was circling the place. A sign of curiosity, he thought vaguely, and felt faint stirrings of hope. But soon the bug-like figure disappeared, and Sam lost interest. He flung a few more sticks onto the fire, and groped his way to bed.

He fell asleep as soon as his ear nestled into the pillow. He awakened feeling he'd never slept at all.



Sally was shrieking at him. "Sam!" she cried, shaking his shoul-

der. "Sam! Get up! Sam! The house is burning!"

Dazedly climbing from bed, stumbling out the door in bare feet and pajama-bottom, Sam felt again that congealing sense of failure. Everything was going wrong—even the barbecue he'd staged to amuse Sally.

He discovered the fault wasn't his, this time. The cooking fire was down to embers—it was the stack of crated supplies that burned so luridly and smokily. A trail of smoldering moss led from the barbecue pit to the pile of cased goods, and from there—he ran to see—went out fifty feet from the house. At the end of the singed trail lay a native, his oily surface ablaze, his body shrivelling as it writhed.

The native made no sound, but his searing agony was plain to see. Sam dashed for the bucket, dumped the dishes from it, and raced to the creek. Three times he flung a bucketful of water over the native's carapace before the flames were smothered. By then it was too late; the creature's life had guttered out.

And the priceless supplies were going! The pile was afire along its outer border, as if the native had tried to scrape out the flames he bore on projecting cases.

And Sally? She was running around barefoot, carrying things from the threatened house.

"Get some clothes on!" Sam shouted. "And don't lift anything heavy!"

**H**E DUG INTO the piled goods like a small insect boring through sand, carrying the innermost cases away from the shack's wall where they'd been stacked. Then, with the hopelessly inadequate bucket, he wet down roof and walls, trying to keep them from burning, putting out the sparks that conspired to leave him homeless.

Time itself seemed to be caught up in the blaze. Sam never knew how often he rushed back and forth from

house to creek, flinging water, carrying crates, filling the bucket, glancing occasionally at Sally, then rushing to the creek again for still more water.



Altair was half way between horizon and zenith before the last whisp of smoke had died down. The shack was intact, but its salvaged contents lay strewn over an acre of landscape. Sam was burned, bruised, blistered, and exhausted. And Sally was once more on the verge of hysteria.

"What do we do now?" she wailed.

He kissed her. "Well, that fire's out," he said, smiling wanly. "I guess the first thing we do is light another—in the stove."

Sally made breakfast as if under opiates, while Sam washed, dressed, and hauled back to the shack a few of the things she'd just carried out. It was a dismal meal, eaten in silence. As soon as it was over, Sally got sick. Sam put her to bed, and spent the day trying to bring order out of the chaos that surrounded him.

Disposing of the corpse—simple enough, so far as the work of it went—gave him the most trouble. Sam buried his hopes with those charred remains. On Altair 3 as elsewhere, he decided gloomily, there must certainly be taboos concerning the dead. In the light of native customs that he'd so miserably failed to learn, he was very probably mishandling the body. And even if he weren't, the natives most likely considered him a murderer...

As he repiled crates, carried personal effects back into the shack, fixed lunch, cleaned, swept, and tried to make a few essential repairs, Sam kept looking over his shoulder. It was, he told himself derisively, as if he had a nervous tic.

But he couldn't stop. He couldn't help wondering when the natives

would descend upon him, to demand their comrade's body and take revenge for his death.

**T**HHEY DIDN'T come all that day.

When, having made a light supper and cleaned up after it, Sam felt free to crawl between the sheetless blankets on the cot, he had decided these bug-things must be trying to ignore death itself.

The thought gave him no pleasure. He'd promised Sally not to seek out the natives; he knew that if he did so, he might well be punished as a criminal. But, lying there in the darkness, Sam found himself face to face with a fact he'd been avoiding all day.

He absolutely must get hold of those creatures, now. He'd lost too much food in the fire, was no longer self-sufficient enough to get by without their help. Sally would starve if he continued to fail.

"But you promised!" she said at breakfast next morning. "Besides, they'll probably kill you!"

"I don't believe so," he hedged. "I'll bet they have no enemies of any kind, and don't even know what an enemy is. We've never seen a single predator here, remember; there probably aren't any. I suspect that all the local animals are vegetarians—all we've seen eating were. And with the native population as low as it seems to be, I doubt they have to compete for food, either. Most likely the lack of both enemies and competitors is what makes these painters ignore us—we're just nothing for them to worry about."

"They're probably worried now," Sally objected. "One of them died here, and the way he died makes me think he didn't know what fire is. So they can't be very far advanced—not worth investigating, Sam."

"Oh, I don't know," he argued. "They seem to be highly inflammable—on account of their oily surface, most likely. Man could experiment with fire because a minor mis-

take meant only a minor burn but maybe these creatures can't touch fire without being burned to death."

"They must be awfully stupid, then, because one of them did touch fire."

"He was a painter, maybe. At least, he almost certainly appreciated form and color. Flame and coals are beautiful, and probably were unfamiliar to him. So he picked up a pretty bauble that was a hot coal—"

"You promised! You could at least try to find some local foodstuffs without wandering off after natives. They won't help you. And if they never cook anything, they probably have a lot of foods we couldn't eat."

"All right," Sam said resignedly. "I'll do it your way. But I've got to get out and around. I'll try to see what the local animals eat that looks possible for us, maybe find some berries I can experiment with..."

He pushed back his folding chair, anxious to get away before Sally pursued his plans to their ultimate implications, saw the hazards of his simple scheme.

On the one hand, he remembered that most things poisonous to terrestrial man were also poisonous to other terrestrial life-forms. Sprays and baits harmless to man and fatal to vermin, for instance were few, and artificially developed. In theory, he might be able to eat what other animals ate.

But if this were a vegetarian world, as he suspected, then toxic secretions would have special survival-value for plants provided with them. There were probable plenty of poisonous plants here. Plenty! He'd have to be awfully careful...

"I don't want you horsing around, Sal," he said from the doorway. "I'll do all the experimenting, understand? And from now on, I'll fix my own meals—the remaining supplies are for you."

"But that's not fair!"

"Well, you've got more than just yourself to be fair to."

"Oh, Sam!" She rose and clung to him. "Don't be gone long, darling."

"Oh, no," he assured her. "I'm just out for a little walk." And to prove it, he left without the belt holding his canteen and emergency rations.

### ✓ 3 ✓



**E M I S S E D** the weight around his hips. Passing the creek, he felt suddenly thirsty, yet hesitated to drink water that he'd never tasted undistilled. No use experimenting with it, he decided; the still was

undamaged.

But thirst grew as he wandered on. He knew it was psychological—a trick of his vagrant mind. He put a pebble under his tongue.

Without conscious thought, he'd started in his usual direction, toward the garden and the cliff behind it. Carefully he observed the small animal-forms that crawled, wriggled, ran, and flew out from under his feet. None of them seemed to be eating at the moment.

Well, if he couldn't eat what they ate, he could possibly eat some of *them*. American Indians, he remembered, had liked grasshoppers; he was himself fond of shrimp.

But if there were no predators here, it might be a mistake for him to act like one—to make himself feared. Not, of course, that the natives' reactions would matter. He had no intention of getting in touch with them, Sam reminded himself.

Certainly not! He'd only chosen this particular direction to walk in because he knew the way. He was going to the garden as a matter of course, because its obviously arti-

ficial plantings might be crops. There wasn't the slightest chance, Sam emphatically told himself, that he'd break his promise to Sally.

But when he got to the garden, Sam could clearly see, as he'd seen many times before, that it wasn't a farm; the several acres contained too wide a variety of plants. The place was, more like a horticultural museum than a food-growing area.

Whether the plants were of types selected for food or for ornamentation, he couldn't tell. They were all sizes and shapes—lichens as big as pines, shrubs that looked like miniature hardwoods, flowering plants, and some that seemed downright ugly.

He looked among them for fruits and berries, handicapped by the fact he was not a biologist but a sociologist—remorseful because he'd never before searched out local food-resources. Painstaking effort redoubled his thirst—made him hungry despite the short time since breakfast. And, as Altair rose higher and higher, his appetite acquired a genuine excuse for its clamor.

Regularly, every fifteen minutes, he told himself he must go back before Sally got upset again, just as regularly, he assured himself that in another fifteen minutes he'd find manna.

Under the influence of hunger, his sense of smell became more active. He sniffed the wind like a hound—and found a message in it. There was an odor borne on the light breeze—something he couldn't place, though it seemed familiar. Something pleasant; he decided to trace the scent to its source.

**T**HIS SOURCE was a pool in a corner of the garden—slightly scummy, bubbling occasionally, clouded, and brownish. The tall vegetation that grew all around had concealed it from his earlier, more casual inspections.

Leaning over the pool, he recognized its odor, or thought he did. It

was yeasty, like a bakery. Or—that was it—a brewery! Something was fermenting here.

He felt an overwhelming desire to taste the product of that fermentation. Thirst, in the back of his mind for hours, now, became a sharpnailed hand, clawing at his throat. Alcohol was a disinfectant, he assured himself; this would be safer to drink than water.

Kneeling, he thrust a hand beneath the scummy surface, finding the fluid warmish, slightly viscid. He cupped his fingers and drew out a small amount. It smelled good.

His hand didn't cool very rapidly in the air—not the way it would have if the fluid had been high proof. There couldn't be enough alcohol in it to hurt him, he decided; he thrust out his tongue and licked up the few drops that had not yet dribbled through his fingers.

They tasted sweetish, as if the fluid were high in sugar content. Perhaps it might give him a little quick energy, stave off hunger as well as thirst. He cupped both hands together, plunged them into the pool, drew out a fairish quantity, and gulped it down.

The drink gave him no pleasure. A sense of guilt had touched his mind before the fluid touched his stomach. He became fully aware that this was an unnecessary risk—mentally acknowledged that, for Sally's sake, he should have been more careful. Fortunately he rose to leave.

As he turned away, his attention was caught by a rapid motion seen in the corner of one eye. From half-way around the pool, a native waved its arms vigorously and looked straight at him.

It could have been the one he'd seen in the garden yesterday, Sam thought, but he wasn't sure; all the creatures looked alike to him. Certainly this one displayed excitement, though; it seemed to be waving him away from the pool!

Well, to hell with that, Sam decided. This stuff seemed to be harmless—refreshing, in fact. Besides, if the beast wanted to communicate with him, it could damned well go jump. He'd promised Sally, and by golly he wasn't going to have anything to do with them; defiantly, he took another drink.

By the time he'd risen and wiped his lips on his sleeve and his hands on his pants, the native was upon him, showing unmistakable agitation in the urgent way it waved its arms. Impulsively, Sam thrust out his hand, and mockingly said, "How do you do?"

There was no audible reply. The native stopped waving its arms, took Sam's warm damp hand in a cooler, oily, hard one, and drew him away from the pool, scuttling backward. Mildly repelled, but not frightened, Sam disengaged his hand and followed freely.

He stumbled, though, and had to be helped by a renewed grip of that shell-coated hand. On his empty stomach the alcoholic fluid churned and burned; he was getting drunk, knew it, and was very much amused at the idea.

Sam permitted himself to be drawn into the shade of some trees. Then, suddenly obstinate, he balked. Instead of going further, he lay down, giggling.

Dizziness stopped the giggles. Sam felt dissociated from himself, as if floating free in space, whirling around and around like a planet in its orbit, except that he was sun as well as planet. The trees around him circled nauseatingly. The native wavered as if seen through heated air.

Sam shut out these sights by closing his eyes. Almost immediately, he was whirled off into sleep.

**EVENING'S** chill awakened him. His head ached. He was stiff from lying on the ground; he was dizzy; his stomach was upset. For a few seconds he not only forgot where

he was, but feared to open his eyes and find out.

When he did open them, it was to squint at a gyrating world only now slowing down from the rotation that had sent him to sleep. As the speed decreased, he made out the sheltering vegetation, and what looked like several natives.

He'd never before seen several natives in a group. He thought he was deluded, and closed his eyes to shut out the hallucination. Then, cautiously, he opened just one eye, and looked again.

No, by golly! He wasn't suffering from double vision! Six unblinking natives stared in a row!

Carefully, Sam moved each aching limb in turn. They felt battered, but more or less whole. And they were unconstrained. He rolled over to his stomach and got slowly to hands and knees. The exertion made him violently ill.

It took five minutes to get to his feet. The natives offered helping hands, but he rudely brushed them off. He wished they'd do something he could blame them for; it would be nice to say this was all their fault.

But it wasn't. He knew exactly where he was, now—and how he'd gotten there. He promised not to leave Sally alone, and had left her alone. He'd promised not to have anything to do with the natives, and had displayed obvious weakness before them. He had come out to find food, and had gotten drunk. He was, Sam felt, the lowest form of life that had ever fouled up an important assignment.

He must get control of himself. Those beasts were probably plotting some fiendish revenge for the one that had burned. And he could hardly stand without falling.

Maybe another drink would fix him, Sam felt vaguely. Sure—hair of the dog!

Ignorant of the proper direction to take, he staggered off in search of

the pool, the natives following in a silent semicircle.

He found it. Guided by odor or submerged memory, he stumbled through the growth around it, flopped to his knees, blew some of the scum away, rested his hands on the bottom, and drank.

A native tugging at his jacket made him stop. He looked around, and saw that the other five were waving their arms frantically.

Sam didn't care. The natives seemed suddenly ridiculous, like a team of cheer-leaders from some school for defectives. He was going to settle his—urps!—settle his stomach. And then go home, s'help him.

But after he'd had another drink, and had gotten clumsily to his feet with only the native who clung to his jacket keeping him from falling into the pool, Sam decided he couldn't go home yet, though it was almost dark. Nope! Dark or not, gotta have something to show for this little excursion. Gotta bring home some food!

Since the natives were gesturers, he gestured, making all the signs he could think of for eating, food, hunger, and weakness. They seemed mainly interested in edging him away from the pool. He gave up signalling, therefore, and plucked a lettuce-like leaf from a plant beside him, opening his mouth to eat it.

INSTANTLY the natives closed in, tearing the leaf from his grasp, forcing him to wipe his hand on the ground. They had little regard for his thin skin—scraped some of it off on the twigs and pebbles underfoot, made it to blister.

Sam didn't like that. He lurched away from them down the aisle of plantings to a bush with small berries on it, like pepper-corns. He plucked a few, and tried to eat them.

Again his find was knocked from his hand. This time, though, the natives didn't damage his skin. They'd better not! Sam told himself fiercely.

He tried another plant, tearing a

pieces of soft and rubbery bark from a tree nearby. Once more the material was taken violently from him; this time three of the natives grasped his clothing, trying to pull him in a specific direction.

Out of the garden, he thought. Away from their precious plants. But they had plenty—they could afford to share them!

"No, you don't!" he muttered, and savagely beat them off.

What happened next was never clear to him. All six natives seemed to close in as if by signal. With horny hands they pounded at his legs. The more he struggled, the harder they hit.

Finally, he tripped. Then, with a single sharp blow to the base of his skull, one of them knocked him out.

•

He came to with the sensation of being carried—horizontally, but face downward; his nose kept bumping something.

Opening his eyes, he found that his nose was bumping the back of a native. He was being carried feet first through the darkness on two of them, while others grasped him with painfully clawlike hands. He felt awful.

An overwhelming desire to escape surged through him. But it had been, he recalled, another overwhelming desire—to drink from that loathsome pool—that had gotten him into this mess. He lay still, letting consciousness return slowly but fully. He was almost sober, now; sober enough to feel both sick and sorry.

And helpless. He'd fought these natives once, and lost. Might lose again. And if he escaped, would they be far behind? He had no place to run but the shack, no desire to lead a group of irate captors to Sally.

Besides, it was dark, now. He couldn't see where he was going. And it wouldn't help anything if he found out. He decided to let them revenge

themselves, satisfy themselves. As far from the shack as possible. It was the least he could do...

He was feeling quite heroic when they set him on his feet, but that pleasant sensation evaporated when he saw why he'd been released.

They wanted him to open the door of his shack. Obviously they had seen him pass through here, but apparently they didn't know how to work the latch. He realized they must long have been aware that he'd regained consciousness.

What could he say to Sally? Sam wondered frantically. What could he do to avoid shocking her?

He'd never before been brought home drunk. Searching his mind for the right way to greet her, he called, "Company, honey," and waited for her to answer.

## S 4 S.



ALLY held a lamp in his eyes as she swung open the door. "Good grief!" she gasped. "Are you all right?"

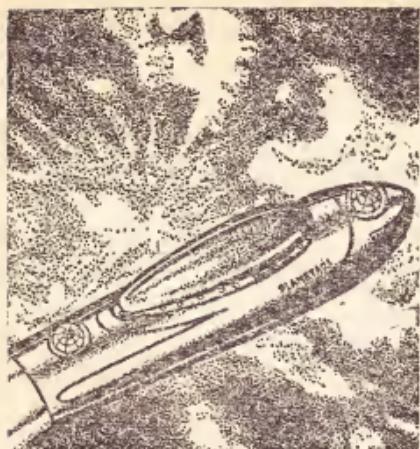
"Fine," he assured her, grinning as he swayed.

She moved closer, as if to kiss him, then sniffed suspiciously. She stepped back, and only then noticed the natives standing behind him in expressionless array. She nearly dropped the lamp.

"'S all right, Sal," Sam said, shuffling his feet. "These boys are friends of mine." He was aware of thickness in his speech, but couldn't seem to control it.

The impediment served a purpose, he observed. Sally's initial shock gave way to indignation; she was much too angry to be frightened. "Your friends can put you to bed," she sniffed, tossing her head. "I certainly won't."

She stood aside. Without help, Sam



managed to cross the threshold and sit on the cot. The natives stared through the doorway. Sam got up, took the hand of one, and led it within. The others followed, and he closed the door.

The natives huddled in the center of the floor, filling the room. Sally shrank into a corner by the stove.

"My own dear Trojan Horse," she jeered. "Wooden head and all."

"This is what we were sent here to do, Sal," Sam said reasonably.

"It's what you promised not to do," she reminded him.

"I couldn't help it," he said. "They came to me. A good thing, too, come to think of it; I was trying to eat things in the garden, see? They wouldn't let me, and now I'm getting the idea they've got nothing but poisonous plants there, probably to teach their young. Sure! That would explain why they got so excited. And see, I've got a little skin-allergy on my hand, like poison ivy."

He held it up for her inspection.

A look of sympathy passed swiftly over her face, and was as swiftly repressed. "Do they have a bar up there, too?" she asked, much too sweetly.

"No. But alcohol is a poison, of sorts. So they have a fermenting pool up there. I didn't drink very much, but I haven't had anything to eat all day—"

"I'm not going to cook for you now," Sally stated. "We can't feed them all, and you can't just eat while they watch; you'll have to wait till they go."

Resignedly, knowing she was right, Sam thrust his dirty hands into his jacket pockets. He felt something, fingered it, and recognized the chocolate bar. Just the thing!

**C**LUMSILY Sam took out the bar, wiped a few crumbs of dirt from it, and with his pocket-knife cut it into eight small but more or less equal parts. The natives watched fixedly.

He gave a piece to each of them, one to Sally, and kept one. The natives held theirs and watched him.

"This is to eat," he said, and thrust his entire portion into his mouth. Sally did likewise. Hesitantly, looking from them to one another, the natives nibbled with chitinous mandibles at the small brown squares. One by one, their bits of chocolate disappeared.

"Sally, I think they like the stuff," Sam said, pleased with himself; "I think they want some more."

"Well, they can't have any," Sally said; "we can't spare it."

"All right." Turning to the silent natives, Sam displayed empty hands, turned his pockets inside out, and shrugged. "No more," he said, and shook his head. "And I'm still hungry, too." He rubbed his belly, and pulled tight his jacket's belt to show emptiness beneath it.

The natives looked at one another and seemed to commune. They turned to the door. Stepping carefully between them, Sam opened it. They marched out single file and disappeared into the night.

"Rude, aren't they," Sally said, grinning relievedly in spite of herself. "When the food runs out, they go home."

"I don't know," Sam said. "All day I've been trying to show them we need something to eat. Maybe they

have the idea, finally; maybe they're going to get us something."

"Yes?" Sally was staring out the shack's rear window, her face shocked and pale. "Look! They've found the grave!"

They had indeed. Under the dim auroral light they'd already begun to burrow through the soft, recently-spaded dirt for the body of their comrade. Sam watched with bated breath as they recovered the corpse, loaded it onto the back of one of their number, and bore it away out of sight along the dark and rolling plain.

He reached out to grip his wife's arm. "I'm sorry," he said. "I'm a fool and I know it."

"Maybe they do, too," Sally said thoughtfully. She was silent a moment, her forehead puckered in thought.

"You know," she went on, "seriously, Sam, that might be the key to this whole nightmare. I mean, look—the natives know about these ant-like social life-forms that live here. Those insect-things have a complicated social life, but all on the basis of built-in drives. They just react to endocrine secretions and the like, and don't think the way we do. Their patterns of action are complicated, but unchanging.

"Maybe the natives ignored us because they thought we were just a pair of strange animals, of no interest since we're neither enemies nor competitors—you yourself said they have none—going through our complicated, instinctive, unratinalized routine. Today, though, you proved them wrong by going out and acting foolishly, in a way that obviously was not built-in."

"You're sweet," Sam said, "to try making yourself believe that everything I've done was for the best. But—"

"I'm not saying that! I'm only saying that rational beings are the ones with wills instead of drives; and it's will and not instinct that gave you the capacity to go out and make a

fool of yourself today. Animals never do so good a job. For instance, they usually leave alcohol alone unless first driven neurotic by artificial means—that's been proved time and again, experimentally. Animals aren't even likely to play around with something that's none of their business—the way the native did last night trying to steal a piece of our fire. Maybe its mates recognize that we share its capacity for error."

*Another thing that rational beings have, Sam reflected briefly, is a conscience.* He wondered if it was his feeling of guilt that kept him from accepting Sally's theory. Still...no use eliminating all her hopes...

HE SAID, slowly, "I guess every animal on this planet—except a very young one—knows better than to drink from that pool. And I guess it might be called a clincher that I got drunk, slept, woke, was sick—and then went right back for another drink."

"Oh, you did!" Sally sounded genuinely shocked. "Well, I hope you feel as bad as you look!"

"Worse," Sam assured her. He got up, slopped water into a basin, and washed, avoiding her troubled eyes.

Wouldn't it be nice if she'd figured everything right, he told himself. Wouldn't it be nice if the natives came back with a large supply of tasty and nourishing food.

But what if they'd gone for their soldiers, or their weapons?

He didn't want Sally to think of that. "You might as well turn in," he said with elaborate casualness. "You've had a bad day. I'll sit up a while, in case our guests come back. Have to be polite, you know."

"I'll sit up with you," Sally said sharply. "You might need me to reload."

Sam stared at her, wide-eyed and not wholly grateful that his mind had been so clearly read. But resentment gave way to affection. He kissed her,

laid out his guns, and spent the rest of the night hauling in crated supplies and setting them around the interior walls to serve as breastworks.

•

It was dawn, when the natives returned. By then, Sally was dozing in a chair, and Sam, the cabin crowded to the roof, had stopped work to thoughtfully watch Altair climb the sky in a blaze of scarlet and gold, painting the granite cliff with colors more striking than any that rational beings had ever devised.

"They're coming," he warned softly.

Sally awoke, and rose swiftly but stiffly. "How close shall we let them come?" she asked.

Sam hesitated then squeezed her hand as he gave her a gun. "When you said they might understand us, didn't you mean it?" he asked gently.

"I meant they *might*—yes."

"Well, I'm going out to meet them," Sam said.

"But—but they might kill you!"

"Honey, a while ago you came up with a beautiful theory that rational beings can be distinguished from beasts because rational beings make such dopey mistakes. Well, while you've napped I thought up another couple of distinctions to take into account. One is, that only the rational can theorize in the way you did. The other is, that lacking those built-in drives, we rational ones can act in brand new ways when we want to, and actually adapt our behavior to our theories. And that's what I'm going to do."

"But Sam! My theory may be an awful mistake!"

"To err is human," he said, grinning over his shoulder as he opened the door. "And human is what we're trying to prove we are."

But apparently Sam's earlier blunders had been enough to establish his rationality; for the natives brought nothing but food.



### It was more deadly than any fanatic!



Don't miss this powerful novella of a newspaper that was run on the basis of the incredible Kiersten Equations, and of a town that became the puppet of

### DOOMSDAY'S COLOR-PRESS

by Raymond F. Jones

*A Story That Might Be Fact,  
Rather Than Fiction!*

It leads off the November issue of

# FUTURE SCIENCE FICTION



My one chance lay in my ship's being spotted...

# "X"

## For "Expendable"

Novelet of Deadly Pursuit

by WILLIAM C. BAILEY

There was one way I might be able to retire on my earnings, and with most of natural health and beauty — that was to come through with a series of big-time capers. If I didn't, that "expendable" part of my job would find me listed as "expended" after a while. And this first caper had everything I needed for a good start — and the opposition had everything they needed for finishing me!



ONE LOOK at the vaulted interior of the Chase Bank, and I knew I had made a mistake. A quiet branch office was what I wanted, not the over-stuffed mausoleum downtown.

Vice presidents come cheap at the Chase. About twenty of them droned at their desks, set in neat rows in the bull pen. Each VP was defended by two file-baskets, one desk-set, one visiphone plate, one blotter, and one extra chair for suckers. Uniformed guards hovered over the gate in the low walnut rail.

The Cashier was my meat. I spotted the tiny black and silver sign over his door. He had a private office and a protective secretary. I let her peek at my badge; she popped her eyes and let me in at once.

The Cashier had a sharp, knifey eye, keen enough for a big-shot in the System's biggest bank. He slashed a glance at my badge and at me. "How much do you want?" he asked in a tone as cold as a frog's belly.

I had really only wanted a thousand or so, but his tone said he could count nothing smaller than millions.

"Five thousand credits," I said meekly. He sniffed; I was small fry. But he laid a comparative ophthalmoscope against my right eye and slid my badge into its slot to check my retinal pattern against the magnetic image locked in the metal.

"X-3206," he read from my badge as he filled out the cashier's check.

"How do you want it?" the first paying-teller asked, impersonally.

I didn't really care, but I couldn't help feeling conspiratorial—or maybe I was just feeling my oats. Anyway, I leaned one elbow on the counter and snarled, "Used twenties and fifties, Jack," out of the corner of my mouth. I half-turned, and leered at the citizen behind me. That was wrong; he was one of those eager-beavers who spot a crook every time they see one, the kind that turns in police alarms. I picked up the dough without even counting it and beat it for the escalator to the surface.

It made quite a wad, more dough than I had ever seen in my life. Every step of the way I could feel Fidgety Frank's eyes crawl over the back of my neck, like two squashed bugs. I felt sort of scared.

It wasn't the first time that day I had felt scared. There had been a terse note on my desk first thing in the morning to see Foran. Visiphone would not do; he wanted a *personal* talk. You don't like that kind of summons after only two weeks on the job.

He had sagged through a few more birthdays than I had figured, maybe forty-five; it had grayed him some. He was sleepy-looking from too many years on the job and not very fast spoken. His story was written all over him; old-line bureaucrat, competent up to a point. But no real hot-shot would have been stuck in a backwater like the Cadmium Unit until he was forty-five.

Foran knew I knew it. He was tough on young guys; he was tougher than that on me. "Good morning," he said when I stepped into his office, conning slowly in his swivel chair to face me.

"Good morning, Mr. Foran," I replied respectfully.

He slid down in his swivel-chair, and laced his fingers lightly together in his lap. His head tilted thoughtfully to one side, which let him look

at me on the bias. It was a gray, dry look, tinged lightly with irony. "What's your number, young man?" he asked.

"X-3206, Mr. Foran."

"My, my," he breathed. "If I remember my Academy days, 'X' stands for 'expendable'."

"Yes, sir."

His head straightened up. "You don't look very spent to me, young man," he said, his smile as dry as ashes.

I didn't think it very likely, but I gave him benefit of the doubt. I chuckled, as if he were a pretty funny guy. He chuckled back, as if he really wasn't. "Tell me," he asked, guileless as a pawnbroker. "Why did you decide to be an Expendable?"

I told him the truth. "I'm a big strong ape, Mr. Foran; I figured I might bull my way through a few big plays before I get old and slow, and make enough reputation to be pulled out of the front lines and given a hot job while I was young enough to do something with it."

**FORAN NODDED**, carefully relaxing his gray fingers in his lap. He turned his swivel-chair idly in a short arc. "Somebody was mean to you, young man," he said. He kept tromping on that "young man" pedal. "The Cadmium Unit here has not been a very active front; you'll have a hard time finding the big play you're looking for. It's a good place, though," he went on in his soft, slow voice. "A good place for a young pup to cut his teeth." He turned back, thudding the palm of his right hand softly against the chair arm. "But one thing, young man: the Cadmium Unit has been running like a well-oiled clock ever since I've been here; I expect our new people to remember that, and try to keep our high standards of quiet efficiency."

"Yes," I agreed, "it is quiet here. On the other hand, I guess IPO must have had some reason for sending me to look you over." I tried to work a

friendly note into my voice. "But, shucks, Mr. Foran, what I'm doing won't upset your routine at all."

It didn't take. Quiet-spoken guys are funny when they get tough. They can't shout; they have to get even more quiet to sound dangerous. Foran sounded very dangerous. "Look, Sonny," he said leaning forward. "Don't ever forget that I'm the boss here." His gray eyes, brittle as the fracture in a casting reached at me from under his corrugated brow.

"I want one thing understood with you," he went on. "I expect that you will clear any of your projects with me before starting them."

That tore it. I shook my head regretfully.

"No?" he asked.

"No," I said.

His smile was clouded with regret. "All right," he said softly. "You're not the first hot-shot that has come gawking through my office, all feet and elbows. If you cross me, I know how to handle you." He gave me his very, very dry chuckle, the one with death written on it in black, dried blood.

"I don't want to call you a bunch of bad names," I said. "But don't think for one minute I have been nibbling around the edges of this defunct operation for fun. Before ossification becomes complete, I'm turning in a report to IPO that will singe you plenty; you've let this thing become as full of holes as Swiss cheese."

Foran leaned back, a tired, victorious smile on his gray face. "Well, we got it out in the open at last," he said.

He kept on smiling dimly as he swung his chair away from me; it was a gesture reminiscent of an above-ground worker. He looked thoughtfully out a window that wasn't there, forgetting he was in the thirty-third sub-basement, built two hundred years ago by a few farsighted guys in the old UN when they knew that war was coming. They had been abandoned catacombs for over a

hundred years, but IPO had tunnelled to them from some place uptown, and you stole clandestinely to work by compressed air tube from a secret port in a deep office building in Yonkers.

He pondered the imaginary view long enough to make my toes curl. "All alike," he said, to no one in particular. "Go away," he said, turning back at last. "You annoy me."

**B**ACK IN the windowless little box I had for an office, I didn't feel so damned smart. I slumped in the creaky swivel-chair they had dug up for me when I drifted in two weeks before, and looked at the disordered papers heaped on my desk. Dusty piles of invoices heaped on each corner. Worksheets; a batch of D & B reports; and about fifty cryptic memos to myself that I could not quite decipher, having thought of them in odd hours out of the office. One peered like poached egg on hash from the viands on a menu; one was on my laundry-list, and one disreputable note huddled on a piece of paper whose ancestry I felt I should not go into.

With a finger on the visiphone dial, I decided there was no point calling IPO library downtown for more microfilm dope on cadmium shipments. The stuff was there, never fear, to hang Foran higher than a horse-thief; but the more I considered his confidence, the more sure I was he could bottle me up before I could button up my case against him.

That put a crimp in my style. In the minutes since I had left him, I was sure Foran had started to block me at every turning. He would try to keep me off-balance until he cleaned up the mess in his operation. Worse than that, smug as the old goat was, he would never think to check on what had slid by him in the past few months—he would scarcely dare to admit that had happened.

Maybe I was a small cog in the intricate machine Society had jammed together to prevent atomic war, but

I could not let Foran take chances with civilization just to keep the heat off his tail.

Okay, that meant I had to take a powder. My "expendable" classification left me free to cut out on my own any time I felt like it. And I felt like it. Foran would snow me under, tie a can on me, if I didn't; he was looking out for Number One.

You can't hit for the boondocks without some dough, especially when you don't know how long you'll be under cover. I had a couple names on a sheet of paper, which I grabbed, and then snuck down to the tube. A quick ride uptown to our secret "Entrance" in Yonkers, and I was above-ground.

The 'copter ride all the way downtown to the Main Office of the Chase Bank was about as depressing as a look at the atomic slag covering Manhattan always is. Its drab glassiness was broken here and there by pressure-domes protecting the entrances to the "Deeps"—big underground buildings—that were willing to go that far in admitting their presence. It had paid not to abandon the big slag-dunes after the atomblast that melted the city down—the sewage, subways and underground wiring made a nucleus for the new deep city to rise from, like Phoenix from his ashes.

So I promoted five grand with my badge at the Chase and raced to the surface ahead of the coagulating worries of the depositor I had excited with my tough act. Standing on the slag outside the Chase's pressure-dome, I called a 'copter by public radiophone. He let me off at 40 Worth Street, the heart of the non-ferrous metal district. There was no street there, of course, but the Deep kept the address it had sported before its above-ground portions had been melted down in the war.

**T**H E P R E S S U R E dome over 40 Worth was in disguise. An ersatz Greek temple covered the entrance—probably put up some time in the late Eighties, when there was

a fad among architects to pretend they were designing above-ground structures; 40 Worth carried it to a silly extreme. The levels were quaintly numbered in the old style from the lowest up, rather than from the ground 'evel-down. I got off the elevator first at "eleven."

After a couple of barren calls on cadmium jobbers on the eleventh level, I rode further down to the fourth.

Haverford International, which had the whole fourth level, had a kind of simpering modesty about it. They deserved to be called "Haverford Interplanetary", but I guess the firm-name ran back to the old days, and they were proud of it. The Haverfords were extinct—long since dead or bought out or squeezed out; a guy named Seeley was running things. I mooched around for a few hours with his order-clerk, looking over their cadmium shipments, and came back around quitting time to Seeley's office, a couple more memos to myself in my hand.

Seeley was a man to be remembered for his shininess. His black hair was so smoothly brushed it shone; his finger nails, while free from polish, had been buffed to a fine gleam; his too-white teeth, set in his dark face, had a glassy patina. But his eyes were the shiniest of all—little black buttons set on mother-of-pearl whites. And he never took them off you.



They were centered on my Adam's apple when I returned to his office. "All clear?" he asked me. I shook my head but gave him a friendly smile.

"Almost," I said. "A few of your shipments could stand some chit-chat." He wanted to drag in a couple of hired hands, but I shook the idea off. "We don't need facts right now,"

I told him: "just an understanding." He relaxed, but his hard shininess never dimmed.

I told him that I had found that he had a pretty good-sized business in shipping cadmium to people we didn't know as commercial users.

He blinked and looked somewhat surprised. "So what?"

I shook my head and gave him the rueful smile. "Well, you're supposed to report that kind of caarium shipment to IPO. Order M-73."

"Never heard of it," he answered, shining glassily.

So I told him that shipments of a long list of products to non-commercial users required a special report to IPO. He listened well, promised to do so in the future. He asked if there were a penalty for failure to file his reports, and wanted to know if he should call his lawyer.

I told him to relax. "A lot of companies wander into business that require reports, and never realize it." I said. "No penalty; just check up on the order and keep us advised in the future. But for now, what do you know about these companies?" I looked at the sheets I had brought back from his order clerk. "Centenary Disposal Company, Old Style Tinsmiths, Inc., Ro-Be-Lo Corporation and Queen City Instrument Company?"

The shininess dimmed a little; he frowned. "Not a thing," he said.

"Well, who does?"

He grunted and hunched forward in his big, high-backed director's chair. "I don't know," he snapped; "is it a crime to sell cadmium?"

That made me think. "Why, yes," I told him blandly. "Under certain circumstances it's a crime, the penalty for which is death; don't you know that?"

**B**BOY, DID that make him sit up straight! He got white around the nostrils. His left hand started to creep across his big desk toward a row of buttons. I surged smoothly out of my chair and hooked a thigh on the cor-

ner of his desk, almost pinning his hand under me. Now he couldn't reach the buttons without reaching around me.

"What about your salesman," I asked. "Won't he know?"

Seeley gulped. "Ah, yes...why didn't I think of that. I'll find out who he was." His hand started around my left thigh for the buttons.

I leaned over a little and pressed my left palm on his wrist. "No," I said; "no buttons." I let the hand up, and it drew back off the desk as he straightened in his chair.

"But I thought you wanted to know who the salesman was."

"Sure; you know who he is."

"No!" He leaned for the buzzert-buttons again. I pushed him in the chest, not hard, but enough to bounce him back into the chair. "Who?" I demanded.

Well, Seeley pretended to remember real hard. "Art Golz," he decided at last. I thought it was funny that one salesmen handled all four accounts, but I didn't say so.

"Where is he?"

"I don't know, but I can find out." He went for the buttons again; that time I shoved his chest hard enough to bring his feet off the floor when he bounced back in the chair.

Seeley got mad. "Damn it!" he swore. "Golz can be anywhere this side of Saturn! Do you expect I know where every one of fifty salesmen is?"

The first push in the chest had gotten results. Never quit a winning game. I got a little tougher; I wiggled a finger at him. "Okay," I said. "Press a button." He leaned forward eagerly, and I caught him under the chin with the heel of my hand. His head snapped back and his body jarred into the chair. I leaned toward him. "I've had enough of your crap; where is he? Quick!"

He got whiter and shinier than ever. "Merino's Dugout," he said breathlessly.

"Where's that?"

"Times Square."

"Oh, here in New York, eh? I'm just a country boy, myself. Now tell me something, Mr. Man; how do I get out of this building without using the elevator?" He didn't know, but his big plushy office said he was a liar. I looked around, and sure enough, there was a private elevator. The door opened with a key. I asked Seeley for the key; he shook his head.

He gave in when I put my hand at the "V" of my jumper, as though I were going for a weapon under my left arm. He didn't know there was nothing there more lethal than my "buzzer," as the old hands call their badge. At best, it might have made a passable brass knuckle.

Good sense would have required that I check into what kind of a place *Merino's Dugout* was, but that would have meant a call into the office—and Foran undoubtedly had his dragnet out for me. Knowing I was trying to sail my own canoe, he would be using whatever means he knew to sink me.



**M**ERINO'S was quiet as a church. The pressure-dome over its entrance, and a quite spectacular duolith-sign revolving in a drunken, hypnotic orbit, latest discovery of the advertising clan, belied its quiet, restful interior. It was what you might call a family tavern—just the kind of place you would pick if you wanted to tank up a little with the old lady.

The sign proclaimed *Merino's* was at Times Square. The slag around the entrance looked as drab as anywhere else on Manhattan, and I guess, if you know your old geography, that *Merino's* had as valid a claim to the site as anyone.

I asked for a quiet table, and got one they didn't have any other kind.

A sneering waiter took my order for a drink.

He was gone only a few moments and came stealing back with my Martini. My upraised finger kept him at the table. "Page somebody for me?" I asked.

"Who you want, sar?"

"Arthur Golz."

"Who want him, sar?"

"No name; he's expecting me."

This time he stole away for many minutes. A band sighed softly somewhere, the electronic brass instruments nipping off delicate staccatos that no lip could have copied. Sterile stuff. No near-naked babes came around trying to peddle cigarettes, or pictures, or fluffy dolls. A few couples were dancing, but unostentatiously. Outside of being a little ultra-modern, and a little more plushy than you'd like for a steady diet, the place had a nice hominess. I had gotten to the stage of eating my olive before the waiter rematerialized. "Come with me, sar," he sneered.

It occurred to me, as we walked down a blank corridor, after passing through a door near the orchestra, that I was rather lightly shod for the work that might be ahead. Too late, then; my badge, in its holster under my arm, grew ominously warm against my chest. A magnetic search-beam had frisked me for metal, looking for weapons.

A light flared on the door at the end of the corridor. The waiter swooped and whirled in his tracks; his hands did something that I could not follow. I stumbled up against him and saw the undulating glint of a blade in his hand, against my navel. My uvula got a big growth on it. Very big.

"Slow now," said the waiter, accent completely gone. "You should know better." His practiced hand found my buzzer in no time. He recognized it, blanched, and handed it back. He didn't know my silence meant I couldn't coax a single sound

from my throat; he made me go through the door before him.

**W**E WERE quite obviously in the manager's office. Outside of the glow cast by a copper standing lamp, the room was in shadow. A pale suggestion of indirect lighting toned the vaguely distant ceiling. The thick, soft rug was a buff, just this side of being cream. Three large couches squatted in the penumbral edges of the room, trying hard to be a pale green in the dimness.

Merino himself—it could be no other—was seated in a tall-backed chair of the same light green leather behind a desk that seemed carved from a solid block of obsidean. It was not cluttered with the usual impediments of office work. No file-baskets; no desk-set, no visiphone plate. The waiter must have made some sign, for Merino straightened abruptly; he was as white as his desk was black. His jumper was white, his boots were white antelope hide. His dicky and tie were both white. His skin had a pale transparency that told he never saw the sun, and his face was topped by a thinning halo of silver hair. The whole impression was one of ethereal intellectualism, somehow perverted.

The waiter had made me, so I handed Merino my buzzer, which he looked at in silence, and gestured me to a seat. My words of thanks had a peculiarly flat sound in the air. The room was singularly free from echoes.

"I'm looking for Arthur Golz," I said.

"I'm so happy," murmured Merino; "have you found him?"

"Your waiter thought so," I said, poking a thumb at the man, who suddenly wasn't there. In his place stood a lean, cadaverous, lantern-jawed gink in a brown traveling jumper.

The skinny one answered. "Okay, so you found me. What about it?" His voice had the friendliness of a buzz-saw. I realized with a sinking in my stomach that Seeley had taken me; I had been had. All that damned

business by the shiny guy about reaching for the buttons! When I thought back on it, it had been awfully easy to get Golz' whereabouts from him. He must have been delighted when I wanted to meet his salesman. Golz didn't look like the type who entertained out-of-town buyers to me. So I played it big.

"We got the goods on you, Golz," I said in my hard tone; "we tapped Seeley and he said we should squeeze you dry."

Golz not at all. "Your neck, pal," I even teeth scattered thinly along his underslung lower jaw. "That would-be tough guy," he jeered. "What are you after, snooper?" He stayed very close to my chair, bending a little from the waist. His knees seemed to be slightly flexed, as if he were about to spring.

I tried my hard frown. It was a little inexperienced, and it dented Mr.

Golz sneered, showing mottled, un-toothed him. "But that can come later."

"Oh, yeah?" he said, swinging his jaw. A very original remark. But he italicized it, for his hand moved, like a thing apart from his body, crawling slowly up his jumper to the "V" of his lapels. What he had under his arm I did not wish to know, but he acted very much as if it shot people. I got cute. Oh, real cute.

I'm a long way from bald yet. I pretended to adjust a switch hidden by my hair and, raising my hand for silence, spoke into midair. "Hello, Foran. X-3206 checking in. I'm in Merino's private office with Merino and Golz." I paused and made a face like a guy listening very hard. A couple of nods added some realism. My lips moved as if I were about to break into his conversation. "Yes, sir," I said at length. "Yes, sir. At once."

Golz was worried. He was frowning. He looked over to Merino. "Can he get away with that?" he asked, his lantern jaw hanging out a mile. Merino showed his teeth. They were as white as the rest of him; his smile was not nice.

"Not in this office," he purred, toyng with a copper letter-opener. "My screens stop anything. My lights have to be battery powered. No wave-propagated energy can penetrate to this room. Or from it." He regarded me with a mildly reproving smile.

**T**HAT HAD been a little stupid. For a minute I was tempted to laugh and say I was only kidding, but one more look told me that Golz seldom kidded about anything. He stopped paying the slightest attention to me; he had written me off as a big zero in his life. He talked only to Merino, still standing close to me in that funny half-bent, half-crouched position. "Suppose they've got a tracer on this punk?"

"Very likely," said Merino softly, opening a drawer in his desk about thirty centimeters.

"And on me?"

"Maybe, but less likely, since you got in scarcely an hour ago. Then, too, they had to page you."

"How much start can you give me?"

Merino blinked and looked at me the way the butcher looks at the meat. "You mean how long before this thing is back in circulation? Well, we can shoot him full of heroin and leave him in some hop-joint for a day or so, but that's about the limit. I'd better leave with you. No point to killing him—since we're caught, anyway. They'll pick him up with the trace-beam if he doesn't report in pretty promptly, I suppose."

Things had gone much too far, with me having no control over them. I stood up and moved quickly between Brother Golz and the door. Merino was a white flash with a big black object in his white, delicately-veined hand. But Golz was between us, and Golz was in a grip of steel, one thumb in a vital plexus, one thumb on his windpipe.

"Stop!" I ordered flatly in the echoless room. I felt the sound-absorbing deepness of the carpet—there was

no resonance in my feet. Golz stopped; he became a human statue with one hand half tucked under his lapel. I let up a little and he sucked a ragged breath around my thumb.

The black, menacing thing in Merino's hand came up at the end of his arm, until it occulted his face. He was aiming carefully. I cursed Golz for his skinniness and tried to turn my flank against his back; he was too thin to hide me.

I hit my hip against Golz and gave him another breath. "Can he shoot that straight?" I asked.

"No!" he squawked. "No, Merino, don't try it!" The big black thing was lowered. Merino frowned.

"Put it back in the drawer," I ordered, "and shut the drawer." He did both. Golz, under the pressure of my thumbs, sank in the chair I had just vacated. My hand slid down from his throat and plucked the electron pistol from under his arm.

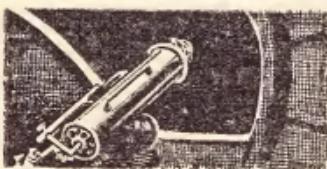
I had them back on their heels for a moment, and made it good by stepping briskly around the desk, opening the drawer and taking Merino's gun out. It seemed to be an old-fashioned cordite pistol of some kind, not an electronic weapon. A heavy weapon, eight or nine millimeters, and from the feel of the grip probably a twenty-shot affair; I saw, now, why Merino figured he could shoot around Golz without injury to him. Golz' electron-pistol was excess-baggage; I tossed it through the dimness to one of the big couches. Merino's gun would wound as well as kill, and I wasn't mad enough to kill, yet.

I stepped back far enough to cover them both. Things had taken a serious turn, and one that I was not quite prepared for. I was shaking like hell inside, especially when I figured that Merino probably could have shot me without touching Golz—and would have, if the skinny guy hadn't thought Merino was using an electronic weapon. Well, so had I.

"The first man through that door

dies, Merino," I said. "Who is he likely to be?"

**H**E SHOOK his head, eyes dark in his pale face. His delicate hands worked as though he were fingering something soft and pliable. "Nobody who doesn't knock first," he said, purring thickly. "What is this all about?"



"You tell me," I said. "I want a few friendly words with Breathless here and he pulls a wing-ding. And you point big black things at me. Such unfriendly people!" Merino was looking at the gun, frowning intently; his spidery fingers had frozen.

He got up and moved toward me, one quick step, and stopped. I raised the muzzle until it contemplated his navel. He stopped short. From the corner of my eye I could see Golz rubbing his neck. He barked a laugh and sprang forward, with Golz leaping at me at the same time. Golz, I knew I could take; I squeezed the trigger at Merino's flat belly. A solid, disappointing click followed, intimately mingled with the crack of Merino's pale white fist against my jaw. He was too light for that kind of work. I slapped his halo with the side of the gun, and saw it go bloody as I turned to take Golz off my side. He didn't want to come off; when he had the initiative, he fought well, and very dirty—almost as dirty as I did. His scream of pain as I twisted his head was cut short by a queer frangible sound. He went limp.

Somehow I knew in that second that I had been blooded; I had killed a man. It shook me up badly. I must have looked down at the impossible angle of his head to his body for many seconds, at the heavy pistol he had wrenched from my hand, its barrel

still in his relaxing fingers. While I stood there, Merino crawled out, like a squashed bug, leaving a trail of blood on the fawn rug. I did not see him go.

Retrieving the pistol that had refused to go "bang," I looked it over. It had a safety-catch, to be depressed with the thumb before firing. Merino had seen that I was not familiar with the old weapon, and that I had not depressed the catch. He forgot it was a good bludgeon; most of all, he forgot I was a big ox, and conditioned to acting expendable.

That conditioning was enough to force me to search Golz at once. His pockets held eighty-seven credits in small bills, a key to his room at the Nether Waldorf; a ball pen; flier keys; a perpetual chronometer with two faces, one front and one back. Front was terrestrial time, five hours later than mine, and the other was a time I did not know. The dial provided for a day of 72 hours, and a red inner dial a day of 144 hours, with concentrically mounted hands of black and red respectively.

Clipped to the small wad of bills was a sheet of yellow pulp paper, such as is used to make rough notes or calculations. On it were two columns of figures, thus:

588	617
624	884
659	1172
911	1173
1143	1208
1404	
1437	

After cocking the pistol once more and familiarizing myself with the safety-catch, I forced the barrel into my badge-holster and stuck my badge in a pocket of my jumper. I left Golz' electronic weapon on the couch. The Cashier was my next target, and his office had a small herd of gabbling waiters in it.

I WAS FEELING pretty wild by that time so I waved the pistol around after grabbing the Cashier.

Everybody else left. "How much did he take with him?" I asked.

The fat roly-poly man stuttered and looked at the gun. I put it up, which enabled him to talk. "I don't know. He cleaned out the safe."

"OK, Precision Instrument. Approximately how much?"

"A couple hundred thousand, at least."

"Where did he go?"

He shook his head.

"To Golz' place?"

"Maybe; he didn't say."

Then his eyes got crafty. He was already forgetting about the gun. "Why? Has Golz got a place?"

That was my question too; a quick 'copter ride to the Nether Waldorf did little to help me find out. Merino had beat me to it by minutes, but the doorman, impressed by my buzzer, remembered that a man all in white had hopped a 'copter to the rocket port. Merino was hard to miss.

I didn't dare use the visiphone; Foran probably had a dragnet out for me, already. Besides, I figured Merino was well enough heeled to have emergency-transportation in standby condition. That was right; he had a charter space-ship there, with its plates hot, and he was in deep space by the time I reached the rocket port.

I might have called it off there. While there was no proof Haverford was up to something, Seeley, Golz and Merino had made a fair case—fair enough, eventually for me to override any blocks Foran tried to stick in my way. But eventually was too damned long; there was no time to start the wheels of IPO grinding in their relentless way all over the system. It was an article of faith with me that the yellow slip of paper on Golz was the key to the puzzle and that this ruzzle had to be cracked at once or never.

I sat down in the waiting room and took out the two things I had saved of Golz'—his watch and the paper. I regarded the watch for some time. The terrestrial time I could

understand; five hours later than New York was Greenwich. The wearer was either a Britisher or a non-terrestrial. Merino had noted Golz had just "got in" from somewhere; I bid on the latter.

The other face of the watch was harder. I went to the phone-booth, stuck my badge in the slot and took a chance Foran might spot me by talking to the IPO library.

"What two bodies in the System have sidereal periods of 72 and 144 hours?" I asked. The answer was, of course, none; things weren't that easy. I hung up and used my own stopwatch to time the black second-hand and the red second-hand on the reverse face of Golz' watch. Then I called back.

"Those two bodies, the first has a period of a little over 80 hours, the second just about twice as long." In about three minutes I knew that the sidereal period of Europa was 85 hours 13 minutes and 42.05 seconds and that of Ganymede 171 hours 42 minutes and 33.5 seconds. Check.

Europa and Ganymede are the second and third larger satellites of Jupiter.

MY LUCK was good. I hoofed it over to the Terrestrial Patrol's launching pits, badged my way past the guard to the Base Commandant's office. The Patrol had a 30-meter job warming up to relieve one of the ever-circling fleet of Planetary Guardians. The ship was fueled and provisioned for a month's patrol, and well enough armed to stand off anything Merino's ship might have on board.

I got twice as creepy a feeling flashing my badge on the Base Commandant as I had gotten from giving the Cashier at the Chase Bank a peep at it. IPO has maybe ten thousand employees who rank high enough to have summary powers. Most of them by the time they reach that state, are safely ensconced behind three secretaries and a big desk. About the only time the public ever

gets the impact of our almost limitless right to requisition property comes when an Expendable flashes his badge. With only a hundred of us hot-shots being set loose in the System each year by the Academy, we get to be *rara avis in terra*.

My idea made the Base Commandant unhappy. Losing the ship he had warming up to me on requisition meant he would have to hold one of the Guardians in space beyond its normal patrol while he readied a replacement. I got the kick of a forger passing his first phoney thousand-credit bill when the Commandant okayed my requisition. Things moved fast after that; within fifteen minutes we had blasted off for the Jovian System.

My commitment by that time was irrevocable. Behind me was a dead man, unreported; behind me was a requisition for some damned expensive travel. I had not asked what the Patrol would bill IPO for the ship, but I knew it could not be less than seven thousand credits an hour for a 30-meter space-ship and crew of seven. And we were one hundred and four hours to Europa.

I had requested secrecy from the Patrol regarding my departure; nothing indicated that a message had been radioed to Merino about it. Foran did not know—the requisition for cash and the space-ship would not come up for administrative approval for several months. I imposed radio silence on the ship. Foran could probably dig my grave by radio before I ever reached Europa, if I tipped him off where I was bound.



**S**PACE FLIGHT is monotonously silence bordered by the deep uneventful, and except for the drone of the jets, as featureless as a

pneumatic-tube ride. With the help of the navigator we passed a lot of time doing some very fine things indeed with the numbers Golz had jotted down on the yellow slip. Some exceedingly clever mathematics were called into play, in an effort to find some relationship of the numbers to each other, or the two sets to each other. Or to anything. We tried it as a cryptogram, as a code and as a cipher; we used up about a mile of calculator tape and grew no wiser.

Jets down, we drew in toward Europa on a long parabolic orbit, made difficult by Jupiter's heavy perturbation effect. Minos, the capital city, was darkside, and our Captain insisted on a weightless detour of four hours before dropping toward the morning-zone and landing at the well-hidden rocket port. All I could think of was that the detour added twenty-eight thousand credits to my soaring expenses. Recognition signals exchanged, our jets cast violet flashes over the frozen, airless surface. The camouflaged dome opened its iris like a giant eye and we dropped in, a rough grounding softened somewhat by the feeble gravity.

IPO has a substantial office on Europa, about twenty kilometers by pneumatic tube from Minos. Big, armored robot-domes, as craftily disguised as a duck-blind, ring the underground base, and muzzles of giant weapons stare in mute readiness into the airless void.

A grizzled space-veteran, twenty years past his Academy days, was in charge. I went from the tube-exit to Harding's office at once. He greeted me warmly; I guess IPO visitors to Europa are not too frequent.

In spite of the no-smoking warnings all over the deep fortress, he calmly bit the end from a pale green cigar and lit up. Nice to be a big frog, no matter how small the puddle. I could hear the quiet pant of the air-conditioning that swept the long plumes of smoke away as fast as they drifted up.

I looked Harding over carefully. He was big and square—not dumb, but big. His ruddy, space-burned face showed marks of old combat—or at least the traces of the plastic-surgeon's knife. Fine lines of white scar tissue radiated from the corners of his eyes. His square jaw repeated the motif. By some miracle he still had his own strong teeth.



His big fingers dwarfed the cigar. "We are honored," he said, "what are you after?"

I grinned. "I'm trailing a crook named Merino," I told him. "There has been a break on the cadmium front, the trail leads to the Jovian system. It looks like it might be touch and go."

Harding's big tough face crinkled in a frown. He would have been a hard man to take a few years back. "What's the lead?"

I trotted out the story of Haverford's unreported cadmium bar shipments, of the fight with Golz and Merino's flight, presumably to the Jovian system. It sounded a little tenuous when I admitted my only lead was Golz' watch, then I gave him Golz' numbers, which meant no more to him than to me.

"Is Ganymede over you?" I asked.

"No," he said. "Each Satellite office reports to IPO, Jupiter."

"Well," I said. "Can you turn your boys loose on a hunt for Merino? I'm sure he has holed up somewhere in the Jovian system. A check on billings by your non-scheduled carriers should turn up something in a hurry. And I wish they would sniff around to see what kind of graft Golz was working on Jupiter or any of the Satellites. We can get retinal patterns on both guys from IPO, Terra,

you might have your hot-shots take a gander at those numbers, too."

Harding nodded. He poked a stubby finger at a button on his desk. "Right now," he said. He poked another button. "I'll ring Ganymede in on it, too, and if nothing turns up by tomorrow we'll cut IPO, Jupiter, and the other Satellites in on the deal."

**T**HAT MADE it look pretty good. IPO is equipped everywhere to do a 99% perfect research job in about about nothing flat. I figured I had put Foran far enough behind me to tip him off. Four days in space to Europa had let me cool down. I hoped the old buzzard would begin to see the light, so I coded this telegram to him:

FORAN IPO NYC FOLLOWING YOUR SUGGESTION ARRIVED HERE TEN TWENTY GMT OCT TWO IN PURSUIT MERINO OF MERINO'S DUGOUT SECTOR O SIX NYC STOP HIS FLIGHT FOLLOWED FIGHT WITH HIM AND GOLZ SALESMAN FOR HAVERFORD INTERNATIONAL FORTY WORTH NYC AFTER REFUSAL REVEAL USE MADE SHIPMENTS BAR CADMIUM CONSIGNMENT CENTENARY DISPOSAL CO AURORA ILL OLD STYLE TINSMITHS CHEYENNE WYO ROBLO CORP TAHITI AND QUEEN CITY INSTRUMENT CO PLAINFIELD NJ STOP SUGGEST IMMEDIATE SUBPOENA HAVERFORD BOOKS AND RAIDS NAMED COMPANIES STOP REGRET GOLZ KILLED MERINO'S OFFICE IN STRUGGLE STOP SUGGEST DETERMINE WHETHER BODY TURNED OVER CORONOR X THIRTY TWO OH SIX

A few hours later Foran answered with:

X THIRTY TWO OH SIX CARE IPO EUROPA OK BIG SHOT FORAN

That was an unhappy message. Foran had left it up in the air

whether he went for my gimmick of saying that the trip was at his suggestion. I had wanted to tip him off I was far enough along so that he could not stop me, his "OK" might have meant he gave in, but that "Big Shot" was a teaser.

I was getting cold feet, and that didn't help. Already my little caper had run past the million-credit mark, and it was spiraling dizzily higher. Foran knew my bosses in IPO were scanning my first caper with doubly keen eyes; maybe he still thought he could cut me down to size. A night's sleep on his radio served one purpose. I woke up mad enough to resolve I would come back with the bacon, or in an icebox for decent cremation.

The next day Foran radioed that Old Style Tinsmiths really used cadmium in an old style solder, made of ten percent tin, ten percent cadmium and eighty percent lead. He also thrilled me with the news that Queen City Instrument Company used cadmium to cadmium-plate marine instruments. But I had struck it rich in Ro-Be-Lo Corporation: it seemed there wasn't any such company, and some cuties had been posing as Ro-Be-Lo just to get cadmium from the customs-house on Tahiti. They left no trail past the customs-house door. The last wrinkle was that Centenary Disposal Company, Aurora, Illinois, was disposing of cadmium bar by shooting it into space in robot spaceships.

And better yet, a monitor spaceship was then detected by the boys; apparently, it was used to establish delivery-orbits for the robot-ships loaded with cadmium bar, once they were well free of Earth's gravitational influences. The boys had pulled in close to the monitor, and it had blown all to hell in an atomic blast. The last piece of fretting news was that Haverford's records showed the diameter of cadmium bars going to Tahiti and to Centenary Disposal was

ideal for use in a graphite uranium-pile operation.

That made it the second time I might have stopped. By now I had Foran where I wanted him—too much had come out for him to be able to bottle me up. What had been dug up on my bunches and work already was worth every credit I had cost. Somewhere, a group of maniacs was making a wild, irresponsible play for power, somewhere, they had cached a hydrogen-lithium bomb and were desperately attempting to make a plutonium primer for it. They knew they could not operate a lithium-plutonium direct conversion dircatron without setting off alarms all over the solar system, and had elected the out-moded, almost-forgotten uranium-pile technique. Graphite they could get, or make, without exciting comment, but cadmium bars were needed for dampers. That old technique was the whole reason for the existence of IPO's tight control on cadmium. And in my first caper, I had hit the first real cadmium case in a generation.

Yes, I could have stopped, radioed back that the thing was too big for one man, and turned the whole IPO organization loose on it. But something told me time was too short and that I was too near home, with Harding on the job I was sure results were only hours away.

I WENT DIRECTLY from the code-room to Harding's office, after receiving Foran's message about the robot space ships. The cigar was going when I got there. One big square shoe was tapping as low tattoo on the asphalt tile of the floor and echoing hollowly against the steel of the walls, ceiling and furniture.

I told him about the radiogram. "What have your guys dug up for me?" I asked.

"Not much," he said, ducking his square jaw.

That puzzled me. "Funny," I said. "Two guys like Merino and Golz

couldn't go far in an airless system without leaving some trace; what have you done on the job?"

Harding squirmed, if you can say a big piece of beef like Harding ever squirms. "Well, nothing, really," he admitted.

"What?" I yelled at him.

"Now see here," he exclaimed irritably. "I can't get all worked up every time some pup comes through here with a cops-and-robbers story, and wants me to poke into the private affairs of every businessman on the satellite. Why don't you relax and beat it back to New York? We can handle this in our own way, and with a lot less fuss; I can get you space home tomorrow."

That was a surprising and very revealing speech. I looked at the smoke from his cigar and he looked at me. The air-conditioning panted; a phone buzzed. He said, "Busy." We kept on looking.

"I get the pitch," I lied at last. "Tell you what; if you're embarrassed, why don't I just invoke my summary powers and subpoena the invoices from your non-scheduled carriers?"

Harding felt he had me running. He stretched his big mouth in a hard grin over his square jaw, shook his head. "That won't buy anything," he said, almost chuckling. "Our non-scheduled carriers do some funny things, not enough for us to come against them, but enough to make them want to keep their business to themselves. They own the local police, and they'll get restraining orders that'll stop you in your tracks."

I bet they would; I bet they'd be tipped off in plenty of time. I bet I was getting mad. I had to truck out the hard grin I had used so ineffectually to soften up Seeley and Golz. It didn't do much better with Harding, but my idea did. I gave it to him: "I want to read every radio message you have exchanged with IPO, New York, since I got here." He turned beet-red. He slammed his big square

hand resoundingly on his desk. "No!" he yelled.

"Then give me a top-priority direct radio beam to General Headquarters, IPO. Harding, I'm turning you in for collusive suppression of evidence; you're under arrest!"

He jerked a square finger toward a button. I let him look at Merino's big, black cannon. He hadn't counted on that; he left the button alone.

"What do you think this is, charades?" I asked. "If you and Foran scratch each others' backs once in a while, what the hell? But when you play footy with me, Jack, you'll get kicked in the kisser every time."

The redness in his face had given way to a worried pallor. A tired old warrior who had his good fights behind him. Too many years behind a desk. Now he was just an old Bureaucrat, trying to make the right play for security. I let the gun rest on my thigh; it's rude to point.

"Look, Harding," I told him. "You would never dare hold out on me completely; and you could never defend refusal to look into an atom-bomb case. To me, that means you've worked it out already. Whether you've given Foran the dope or not, I don't care. But so help me, hand it over now or I'll run you in."

Harding made up his mind; he ditched Foran and whatever Foran meant to him. "OK," he conceded grimly, "so you're a wise guy." He reached cautiously for a button. I let him press it.

The dope came in quickly. Golz was known on Callisto as Robert Minor; his retinal pattern was spotted in a half a dozen commercial transactions—particularly on three invoices of the Calistonian Charter Service—and paid from Minor's account with the Callisto Bank of Commerce, to wit:

To charter flight, Callisto—659

To charter flight, Callisto—1172

To charter flight, Callisto—1173

The numbers, of course, were the

asteroid-numbers of three of the Trojan planets which "Minor" had visited. The numbers on his yellow slip of paper had been the asteroid-numbers of the two families of Trojan planets that rotated in Jupiter's orbit, the first about 60 degrees in advance of Jupiter, the second 60 degrees behind Jupiter. The three he had visited had mining-stations; the others were not known to be inhabited.

The military equipment on Europa you could put in your eye. I figured we would be forty or fifty hours, at least, getting anything from the main IPO base on Jupiter worth waiting for. Fifty hours was too long, so I decided to go it alone in the most suitable thing I could requisition on Europa. I was getting blasé about requisitions. I gave Harding my plan. His eyes glinted for a minute or so with what I took for rekindled battle-lust; he didn't try to dissuade me, perhaps remembering his turbulent early days with IPO.

WE SHOT back into Minos by tube. I had barely strapped myself in the tiny cylindrical car when the catapult snapped us into the full blast of the pneumatic tube. With my head against the rest I blacked out a little as the car accelerated through a few seconds to equilibrium with the compressed air's pace.

The deep intercity tubes on Europa were barely wide enough for fore-and-aft passenger accommodations. Harding rolled his head around the rest and looked back at me. He shouted above the hiss of the car's compression rings on the tube's walls. "IPO doesn't have a ship here fit to use; there's a guy named Whitehead who has a job with a proton-gun. Don't ask me what he does with it, and for Pete's sakes don't ask him!"

Already, it was time to press my forehead against the deceleration rest. The red light flared and we braced ourselves for the jolt as we

were shunted out of the tube and into the deceleration track at Minos.

Harding kicked the dogs on the pressure-door, and we clambered out of the cramped cylinder.

We rode a dinky rattling monorail through dark, slightly lit tunnels to the rocket port. It was about one stage better than an assembly-line conveyor-system.

The launching-pits were dark, hugely vaulted hangars, eerily lit by the merciless brilliance of thinly-scattered mercury-vapor lights. The black steel of the floor and the black, rough-hewn walls drank up the light. It was cold and our breath steamed frostily. The beryllium hulls of spaceships in their launching-racks glinted chillily, reflecting in icy points the distant lamps. The scuffle of our feet on the steel decking made hollow echoes.

Whitehead was waiting for us there. He was tow-headed and satellite-tall, the kind of guy who back on Earth likely as not would be called "Tex" or "Slim." Harding called him "Whitey." He shook hands with that soft, not too firm clasp that spoke of slight satellite muscles.

Harding said, "I want you to meet Whitey; he's our biggest non-scheduled carrier. Maybe he's got a ship you can use." He jerked his head at me. "My friend here is from IPO; he's in a stew and wants to requisition one of your ships."

Whitehead gave me a squinty look. "Just what are you looking for?"

"A one-man job; fast enough to run away from what it can't fight, and strong enough to knock down anything that can run away from it."

"Where you going?"

I shrugged. "Any satellite or asteroid, I guess; maybe Jupiter, too."

Whitehead nodded. He swung a long, loosely-jointed arm in a careless pointing gesture. "We got delivery a couple months ago on a new Jovian rocket-plane; it's got four jets mounted in pairs in the wings,

cowled, vented and cleaned for operations on Jupiter if necessary. Have you ever flown a rocketplane?"

I told him I had, but that I had never shot any landings on Jupiter.

He grinned. "What kind of instrument-license you got?"

"The whole works," I said. "All blind-landing systems and instrument-procedures."

He nodded. "Good enough. This four-holer over here should suit you."



**T**HE SCUFFLE of earthside shoes mingled with the echoing clatter of Whitehead's hobbled boots as we walked across the gloomy vault of the hangar to the nearest launching rack. A stubby-winged rocket plane was poised vertically in its cradle, its beryllium hull glinting with a new shininess that told of infrequent trips through Jupiter's poisonous atmosphere. Twin jets bulked huge in nacelles in each wing, much bigger than I had expected. Then I remembered that they were loaded up with special equipment to keep them operating within Jupiter's highly reactive atmosphere. It was a pretty big ship, maybe 30 meters, with a heavy proton blast in the turret. I turned to Whitehead. "That damned thing looks too big for one man to run."

He shook his head. "The jets are full automatic," he said. He gave me a hard look. "It might depend though," he added; "what are you going to do with it?"

I raised an eyebrow at Harding. It was IPO business, and Whitehead was just one more tough-guy skirting the edge of the law. Harding nodded. "He's okay," he said. "Tell him."

I gave Whitehead a little of the dope on our search for the atomic-

pile we were sure was being put in operation on one of the Trojan planets.

"It might be there," he said. "And it might be in some wild part of Jupiter, too." He looked me over. "You'd better take a pilot, and a couple men to run the drive."

I shook my head. "Too risky," I said. "I thought it was full automatic; why do I need any help?"

Whitehead grinned. "You might be gone longer than you think. Either family of the Trojan planets is 60 degrees around the orbit. That's about 400 million kilometers." He gave me a superior smile. "I don't know how much you can take, pal, but it's between 100 and 300 hours according to the acceleration. You've got to sleep sometime; I'll make the run with you if you want."

That made sense; and, anyway, I decided I would feel better with somebody beside me. Whitehead, according to Harding, had been kicking around the asteroids as long as he had been shaving, and he was a trained Jovian rocket-plane pilot. I had no great warmth for the idea of diving that stubby-winged monstrosity through a thousand miles of blind-flying to the big planet's surface.

He sought volunteers from around the port. I guess he shipped anybody who was game for the ride everytime he went out on a job. I wasn't overly impressed with the crew he brought back—a couple of underfed looking Orientals named Fumiylake and Matimoto; they looked too frail to last through the kind of junket Whitehead guessed we might be on.

It didn't take long to know that Whitehead meant business. It was spacesuits all around before we got on board. He was warning the plates while they tried to fit a suit around the beef I carry. With Whitey and me in the control blister, and the others in the belly, we let the launching-craddle feed us into the catapult-rests. The big airlock doors

closed behind us, and hard points of radiance from the stars glinted above us as the dome-iris opened. Within 30 minutes of the time I had met Whitey, we had blasted off, heading for the smaller group of Trojan planets consisting of 617 Patrochus, 884 Priamus, 1172 Aeneaus, 1173 Anchises and 1208 Troilus.

In spite of the size of the four-holer, we were driving so hard toward Priamus—nearest of the Posterior group of Trojan planets—there was no excessive crew room on board. The cargo-holds were bitterly cold, and contained no accommodation of any kind. I spent my waking hours space-suited in the tiny control room, stretching out in the reclining chair with faceplate open, and sleeping there in the discomfort of my suit when needed, for fear of injury were I to try to move about under the heavy acceleration we were using.

Jupiter had been eclipsing the sun when we blasted off, and the early hours of the trip afforded a splendid sight of Old Sol coming out from behind the colossus of the solar system, with Io and Ganymede in transit. Jupiter and his satellites fell rapidly behind us. Saturn was near to opposition with Jupiter, and the rings were open nearly to their widest, lambently spectacular through the refractor.

PRIAMUS was a bust. We noted nothing to suggest an atomic-pile was in operation, in several quick circumnavigations at differing inclinations to its axis. Our Geiger-counters clucked no faster than usual, and no unusual magnetic patterns manifested themselves. We skipped Aeneaus and Anchises—since they were inhabited, and nothing could go on there without news getting back—and found tiny Patrochus as blank as Priamus.

Troilus was different. Low Geiger-activity and a magnetic pattern that did not check out with our data on its magnetic field. Whitehead brought us low over the surface, at the great-

est velocity consistent with a three-gravities orbit around the tiny planet. Troilus is not any too spherical, so he was busy. It looked easy, for he merely ran the throttles back and forth over their quadrants; but I knew he was steering by differential control of the twin units in each stubby wing. He was out of my class.

Passing low over a sharp metallic protuberance on the dark side, we picked up a distress-signal on the radio. It was not an IPO signal and came over in code *en clair*. Whitehead raised his eyebrows and throttled back. A sharp reversal and deceleration swung us around and left us hanging on softly hissing jets over the origin of the signal.

"What say, Chief?" Whitehead said. "Is that sucker-bait, or is it the real thing?"

"Sucker-bait, absolutely," I replied; "I want down."

Whitehead frowned. "This is what you're looking for, isn't it?"

"Sure," I said; "let's go down."

He nodded, reached for his mike and was about to flip on the radio. "Uh, uh," I said, restraining his hand. "Their big gun, whatever it is, is certainly keyed to our carrier wave. The minute you put out a carrier we'll disappear in a big flash. And don't try to drop over the horizon, either; they'd wing you."

The throbbing vibration of the jets waxed and waned as Whitehead lowered us on a slant to the uneven surface. The pale violet glare of the blast cast jagged shadows across the sharply-curving landscape, but gave enough light to guide the grounding. He touched the hydrocarbon rocket-studs momentarily, laying the rocket-plane down on its belly at the last moment. He picked good cover for the ship, behind a huge outcropping. He might be able to hug the surface on a get-away, shielded by it from the weapon we knew had covered our descent. The bright white glare of

the hydrocarbon rockets faded as he closed all switches. For a long moment we sat quiet in the dark of the control blister, the luminous dials softly mocking the hard pinpoint of the stars in the airless sky.

I stood up carefully in the tenuous gravity and reached to close my face plate.

"Hold tight," said Whitehead. "What's the play?"

"I'm walking over to that dome," I said; "they've got a pile set up there."

"For what?" asked Whitehead. "What can one man do?"

I grinned. "That's my job, Whitey," I told him. "That screwy magnetic pattern we picked up means we have only a few hours left. They've had that pile cooking for a week now, and its already operating on the Frisbee-Smythe cycle, magnetically damped. They must be making plutonium at the rate of twenty grams an hour."

"So what? We're safe here for now; let's radio Jupiter for help."

"Too late, Whitey," I said. "In the hundred hours or so it would take to get any help here, these guys would have completed their job and scrammed with the plutonium. They're only hours away from it now, the way that pile is putting it out."

I turned toward the airlock. "I'll keep in radio-contact with you. If I miss a call, blast off, if you can make it, call Jupiter and hang around to drop their ship with your proton blast."

Whitey stood up and bent a long arm to close his face plate. "Sorry, pal," I heard his voice in my headphones. "I can't see you do it. The engine-room gang can do as well with the ship as I can; I'm coming with you."

His features were almost invisible in the starlit blister, but I thought I could see a reckless grin through his face plate.

I TRIED TO restrain him. Whitehead wasn't IPO; he didn't even act much on the side of organized society. His fast rocket-plane, his big proton-gun, everything about him said he lived on the fringe of the law, if not beyond it. He caught my thought from the tone of my voice. "Yeah, I know," he said. "I'm a funny guy for this play, but I owe the yokels something."

He really meant it. A few words to the others, who gave us their usual nod, and we were out the airlock, leaning toward the dome.

It was our bad luck to be on Troilus' dark side; Jupiter, four hundred million kilometers away, gave little more light than Rigel. The footing was treacherously rough, and I took a couple bad spills; Whitehead seemed perfectly at home. It was scarcely minutes until the beacon on the pressure dome guided us in.

Whitehead held an electronic hand-weapon in his gauntlet, which I disdained, thinking it meant nothing beside the semiportable stuff undoubtedly covering us from the dome. The airlock was open; we went in and watched it close behind us. I felt my suit collapse around me as pressure built up, but my face-plate had cooled in the quick trip and it frosted over before the inner lock opened. You forget simple things like that. When I finally opened it, I was staring at Mr. Merino and the twin of the cannon I had taken away from him in the *Dugout*.

"Come in," he invited. Whitehead was opening his faceplate, too, and deciding against using his hand-blaster. I saw why; two men were backing Merino up, squatting beside a semiportable that could burn us both down in a split second. Whitehead kept his weapon pointed rigidly at the floor and handed it to Merino.

We both stepped across the sill of the inner lock, into a small square anteroom; its sides were of black steel, an elevator-cage making up most of one wall. Our spaceboots

were noisy on the metal decking. It was cold; I could feel it on my face, and the air from my suit, humid from my body, steamed smokily outward from the faceplate opening. Merino looked whiter, more transparent than ever. A purpling cicatrice on the left side of his scalp testified to the relative hardness of his head and a gun-barrel. He saw me look at it. "Ah, yes," he murmured, his breath steaming. "You hit me, Snooper; I will repay you before you die."

I gave him the raised eyebrow.

"Take off your suits," he ordered. Whitey and I unzipped and divested. We weren't dressed for it; I saw that Merino's jumper was down-filled, and a parka was thrown back from his head. The cannon looked at one and then the other of us with the impartiality of Juggernaut. "Yes," said Merino. "You die, but you live long enough to talk." Over his shoulder he gibble-gabbled a few syllables to the two behind the semiportable. They troubled me, and they troubled me even more when the trudled it away on its casters through a door in a side wall of the anteroom.

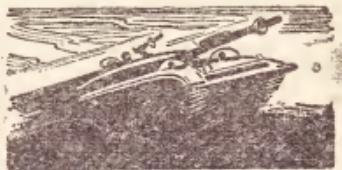
Merino saw my frown. "You do well to worry," he said. The cannon jerked a command to precede him to the elevator cage. A hundred meters below the surface we stepped out into a bare office not much bigger than the room above us. No obsidian desk, no soundproofing, no rug. Just more men and black, unpainted steel everywhere, the welds gleaming rough and undressed in the unrelieved glare of a single mercury lamp set in the ceiling. A PBX on the desk, a couple file baskets with paper in them testified that something big enough to heed administration was happening on Troilus.

"Just what do you want to tell me, Snooper?" Merino murmured, hanging his spare haunch lightly on his desk, his gun, pointed negligently at the floor, huge and black in his delicate white hand.

I shrugged. "What don't you know?"

"How you found us; who is behind you."

**I** GRINNED the hard grin I had been practicing, but my shiver in the cold spoiled it. He was less convinced than Whitey, who now looked very solemn, having discovered in Merino a *really* hard guy. "I'm expendable," I told him; "those are trade-secrets, and they've got to be kept within the lodge."



In spite of the steel plating on the floor, I had not heard them come up behind me. Two men seized me, and with the grace and practice of a well-organized ballet, they put the screws on me. They hurt me as I had wished I could hurt Golz; they *really* knew how to hurt. Even hard guys scream, and I screamed bloody murder. They let up when Merino jerked the cannon. "Talk!" he said.

"Tell him!" Whitey snapped. His words gave me a chance to get my breath.

"What's the matter, pal?" I asked him. "Don't you like to hear me holler?" The way he paled, I knew he didn't. "Better get set, pal," I told him; "I'll yell till I fade!"

That kind of stuff is just plain bravado, but I had been conditioned to it, and I had no idea myself of how far those monkeys could go with me before I'd break. Merino had them try it a couple more times, till I blacked out. He brought me to by slapping the hell out of my face with his dainty hand. It was very hard for anything so white and delicate; it hurt. At least I felt a little warmer.

"Your friend gets it next," he said, and I heard Whitey whimper as he tried to keep from crying out with pain. A good guy. He figured it would soften me up if I heard him scream; he didn't know I was playing at being tough. I hated to do it to him, but I just shrugged.

"Go ahead," I said. "He doesn't know anything. Twist his wrist till his arm comes out by the root; it's nothing to me." Well, they tried pretty hard, and Whitey kept his jaw down tight. I had been telling the truth, and Merino knew it. He didn't have time to fool any more with Whitey. He made a good administrative decision; he abandoned ship.

BY NOW THE play was sickeningly plain. It was Oriental; the two Whitey and I had so trustingly left on our ship were in the play, and we could feel the vibration deep below the surface in Merino's cubicle as our four-holer blasted down to a grounding beside the dome. I heard the hum of the high-speed elevator, the rumble of hand-trucks. Some very brave guys, who thought they were as expendable in their cause as I was in mine, were getting ready to break up a uranium-pile that was hot as a pistol. Some of them would die for it, I knew; they knew, too. They didn't lack guts, those maniacs. The others were still holding us—Merino was needed elsewhere and had left.

It gave me a chance to take stock. I remembered the old quote from Major General Briggs, at Shiloh: "*Things look bad right now.*" I was on a little hunk of iron sixty kilometers in diameter, a hundred million kilometers from anywhere. I still had Merino's original cannon under my arm, since nobody had troubled to search me, but a strong man held me motionless, with an electronic energy weapon against my kidneys. Whether Merino would take time to kill me, I didn't know; but that he would make sure I never left Troilus

I was certain. Things looked very black.

Okay, Big Shot, I said to myself, remembering what Foran had said. Big Shot, all right. Shot right in the pants. I hadn't figured to be "spent" quite so soon when I got my "X" classification. I had kind of hoped I could work my way out of it to something better in IPO.

Whitey decided the issue for me; I guess I would have sat there in a blue stew until they garrotted me, or whatever they do for amusement, unless Whitey had acted. He raised his hands to his throat and began to choke.

"Gas!" he said. "Poison gas! That madman is killing us all!" He made some very fine gagging sounds, and I caught his wink; I gagged, too. Whitey's guardian looked at his mate, a little fear on his stolid face. Whitey leaned forward, away from the weapon in his back, then put his head on the steel decking executing a quick somersault. But his hands had seized the guard's ankles, and they went down together.

A crackling discharge spent against the steel ceiling; ozone smarted in our noses. Whitey twisted like an eel, and my guard swung his gun toward that tow-head. He got him, too. Burned his face right off, with an awful stink of burning feathers, but he gave me time enough to prove that I could crush his skull with Merino's cannon. The other guard and I had a brief tussle for his weapon, but I hit his throat with the barrel of mine, and he quit functioning.

I was still on my hands and knees on the clammy decking when Merino stepped around the corner. I didn't forget the safety-catch that time; he just had time to raise his slim-fingered hands in an instinctive gesture of protection. The noise was enormous, much more than I had expected, and the recoil like the kick of a horse. The slug hit him in the mouth, and I could see where it had

torn out the back of his neck when he fell slowly forward in the weak gravity, almost at my feet.

But the noise spilled the beans for fair. I didn't know where the hell I was, or what door to open. I just leaped down corridors like crazy, slamming into one bulkhead after another, and yanked at every door I came to. I slammed into Fumiayake on the other side of one portal and fed him a slug in the guts before he could wink. I kept right on going. The last door opened flush against the airlock of a space-ship, but not the speedster I had come in.

It was no time to ask questions. I hit the "close" valve on the airlock and streaked up the laddered companionway to the control blister. It was dark as a cow's belly in there, and cold as it was dark. The instruments and control-handles phosphoresced spookily in the blackness, their fluorescent coatings glowing in the invisible light of a perpetual ultra-violet lamp.

We had to be about one hundred meters deep—I hadn't climbed anything after riding the elevator down. That meant the ship was poised in some kind of shaft, with at least light plating overhead. Or maybe a heavy shield.

The pale gloom in the shaft let me see she was a Jovian two-holer, one pot in each wing, with organic emergency rockets. I hit the "emergency" stud with one hand and the radio switch with the other. We popped out of that shaft like a ball from a Roman candle, spitting fire and careening in a no-control power application. Once I knew we were well clear of the surface, I cut the rockets and let her drift out. The tape showed the shove had been four G for about seven seconds. The radio warmed up, needles breaking reluctantly away from their pegs, and then speeding across their dials to operating positions. I had the mike in my hand when they hit me.



**T**HE DOME had been armed, of course. Its heavy electronic weapon cut loose with a dose that must have bled Troilus of every spare electron. They sure charged me up; I heard the whole bank of transmitter tubes let go with a crash, and every electronic instrument on the board did the Big Apple and died.

Dumb luck. Just dumb luck. I hadn't started the drive-plates heating, or they would have overloaded, blown all to hell in the surge of electronic energy from the dome's weapon, and ended my little junket with a real bang.

So I turned the plate-heaters on, figuring the dome would have to wait longer than it would take the plates to heat before it could drive another bolt that hard at me.

My plates got hot, just as those in the four-holer I had ridden to Troilus were ready. Whitey's speedster blasted away from the dome after me, just as the two-holer's drive took.

Our power-mass ratios were the same. Drawing everything I could get from the plates and equalizing the tubes in each wing, the G-meter said I was clocking 6.5 G's. Whitey's pursuing speedster did not gain; but it didn't fall back enough to count.

I saw now I had commandeered a small edition of the ship Whitey and I had used on the trip to Troilus. The control-blister was cramped, the control-panel littered with only half as many dials, but twice as many handles as the four-holer's. The acceleration slowed my circulation, and the damned control-blister was cold enough anyway. I finally found the cabin heater-switch and the defrosting fan; my spine began to ache.

For a while, after blasting away from Troilus, I had felt a wonderful

surge of optimism; the pile, I knew, could not have been dismantled and stowed on the four-holer in the short time we had been there. They apparently had only the one ship, which I was using. All I had to do was flash word to Europa that the pile was on Troilus, before the pursuing ship caught me, and my job was done. But as I tried to think, straining to stay conscious against six and a half gravities, I realized I had no means of communication; the radio had been blasted by the electron gun from the dome. Any attempt at reversal, to permit landing anywhere, would mean that the four-holer could pull within range and let me have it with its proton-blast. My two-holer's armament had gone down the drain along with the radio, I felt sure.

Once again, in an hour of trouble, I thought of Foran. He would have gotten a certain dour satisfaction at the thought of me, driving the day-lights out of my Jovian two-holer, headed for nowhere, and nothing to do when I got there.

**S**CANT MINUTES after take-off, the two-holer began to give trouble. Her controls were not full-automatic, and the hard use given the tubes was beginning to tell. My right tube was weakening a little, losing drive rather than shoving its temperature past the red mark on the plate thermocouple. But the ship was beginning to turn, and any further weakening in the tube would start a spin that would cost me precious distance.

I had to strain an arm—six times as heavy as it should have been—to reduce plate-current in the left tube. Of course I over-controlled; that started a weird dance as I tried to correct. Every damned control in the two-holer's control-blister was manual; and at the pace I was pushing her, my hands were kept busy. If the plates weren't getting out of balance, the jet-orifices were burning unevenly, or plate-temperatures were getting

to the critical ranges. If the race had kept up many more minutes than it did, I would have passed out from sheer physical exhaustion.

The six-G part of the ride lasted only about twenty minutes; it felt like twenty hours, but both of us tired at nearly the same time. I had been forced to throttle back slightly, to keep from passing out from the G-load—since there was no way to set up an automatic cut-out on the drive. But my buddies in the four-holer, apparently, had been forced to do the same moments before me, since they fell slowly astern, but well within pursuit distance.

Course became a matter of some concern by that time. I couldn't head for nowhere forever, no matter how fast I could run; sooner or later I would fall asleep, and they could spurt in and catch me. The dome had been on Troilus' dark side, with Jupiter fairly well in its zenith. As a result, the pursuing four-holer—and my two-holer—were headed reasonably well toward the giant of the Solar System. At three gravities—the speed we eventually settled on for the race, after several attempts at wearing each other out with high-gravity spurts—I could run the calculator.

**A** FEW NICE third-order curves were the result—curves that would bring the two-holer in toward Jupiter in a rapidly-tightening spiral, that would keep resultant apparent acceleration or deceleration at a constant three gravities while bringing the ship into the atmosphere below the velocity of fusion. Once inside Jupiter's blinding atmospheric blanket, I figured I might be able to shake pursuit; out in space, no matter how long I ran, I was a dead duck.

My friends must have figured my game, for they closed up dangerously on me, hopeful of getting close enough for a telling shot with their proton-blast before I entered the atmosphere. They had to brake savagely, to slow below the velocity of fusion, in order

to follow me down into the first tenuous traces of Jupiter's atmosphere. Even so, my hull pyrometers went right off the dial, and temperature in the blister went to fifty degrees C. before the refrigerators got to it. Just about the first time I had been warm since Whitey and I had dropped onto Troilus' frozen surface.

The four-holer's proton-gun was now largely useless, since ionization of the atmosphere would dissipate anything point-blank shot. They still had short-range electronic weapons that would get me—as well as proton-bombs that were accurate at ranges up to a few thousand meters. But I kept my job travelling as fast as a safe hull temperature would permit, and they did not close up on me.

The two-holer kept me busier than ever, as we dropped at decreasing speed through the thickening atmosphere. Every damned control was manual, and I was playing with tube cowl-flaps, catalyst-cleaner flow and fuel-mixture valves like the drummer in a one-man band. In spite of my best efforts with an unfamiliar ship, I could feel a plate or two go sour in the tubes when I let the ammonia in the atmosphere get out of balance with the plate cleaner fluid. The ammonia was poisoning the catalyst on the plates at different rates, with each cowl-flap setting, and I had to play with the cleaner fluid valves like mad to keep power.

And I was beginning to need power. The tubes didn't have the old wallop inside an atmosphere, and you have to use the mass of the atmosphere, accelerated by the plates, for a lot of your KE.

The four-holer was gaining ground on me; at the rate it was closing in, it would be only minutes before they could finish me off. I cursed the dinky job I was driving—cursed its cheap manual controls—because I knew that Whitey's four-holer, with its fully-automatic tube-controls, was still putting out its full rated power. The others were having no trouble trying

to find a cowl-setting that gave enough ram-air and still left the plates shiny; they didn't have to feed cleaner-fluid like a doctor prescribing strychnine—a little to cure but not too much so as to kill. I guess I called them some bad names in those evil moments, when it looked as though all bets were being called.

The atmosphere had thickened considerably as we dove screamingly through it, leaving sound behind us in our supersonic dive for the lower levels. When the pressure reached five millimeters of mercury, it began to cause noticeable smoking when the plates went sour. It was like watching yourself bleed to death—that smoke was the thin catalyst-coating burning irrevocably off my plates and spewing in my wake. I could measure my life against that smoke. Nothing seemed to help—when I buttoned up the cowl-flaps a little, I lost ram-air, and I could feel the two-holer's speed sag. No setting on the cleaner-fluid valve seemed to balance the ammonia—either it was not enough to prevent smoking, or it was so much that the plates were blanketed and I lost more power. The others were getting close enough now to find it wise to pull out of my wake to avoid the smoke.

*Smoke!*

*Smoke!*

**T**HREE THOUSAND years ago, Indians in North America had learned to signal with smoke; so could I. Then I began to laugh. I began to laugh with a kind of hysterical venom at the four-holer behind me. Oh, Whitey had been proud of her full-automatic drive tubes! Those little men in her control-blister were sitting at her control-panel, never thinking of cowl-flap settings, of fuel-mixtures, of catalyst-cleaner flow. They just poured the coal to it and let her ramble. Sensitive differential relays automatically adjusted every variable to draw the maximum power from the tubes, and every setting on them was automatically perfect. They

couldn't be made to smoke even if you wanted them to; and that meant the four-holer couldn't make smoke to louse up my smoke message.

It didn't have to be very long. Just two words in IPO code: "*Mayday Troilus*." My stop-watch made it a nice deal—the dashes were three times as long as the dots. At seven kilometers a second, with cowl-flaps wide open—giving me plenty of ram-air but plenty, plenty smoke—I made my dashes thick, acrid trails of atomically energized, decomposing plate-catalyst sixty kilometers long. The plates lasted just long enough to spell out the message. High in the atmosphere of Jupiter as it was, it would be clearly visible to the closest satellites, perhaps as far out as Callisto. Certainly one of the moons would be in position to read it.

I guess the last letter of "*Troilus*" was a little messy. When the right tube quit and threw me into a quick spin, all I could think of was to cut the switch and nose her down. My friends had not closed up enough to knock me off while I was smokily losing power during my skywriting; they had given up any thoughts of vengeance, about half-way through the message, and were high-tailing it straight up and out of the plane of the ecliptic. I don't know if they ever came down.

The long glide down through a thousand miles of progressively more murky atmosphere was a lousy deal. There was plenty of time to struggle into an ill-fitting space-suit, and run a thousand mental rehearsals of dead-stick landing technique with my stub-winged excuse for an aircraft. My radionic altimeter had been put on the fritz by the electron-blast that had knocked the radio out on Troilus; and the Kollsman was no damned good to me unless I had a decent barometric reading—and certainly not unless I knew what latitude I was landing in. Too damned much of Jupiter's enormous surface area is thousands of miles away from the nearest human

to make a blind-landing any fun.

I fooled around, some, with the sonic altimeter, pretending I knew what I was doing; but the first real warning I had that the ground was close, was when it loomed darkly out of the murk. I didn't have enough sense to pop the flaps or gear, in spite of all my mental rehearsals. Fortunately, I hadn't burned away all the hydrocarbon fuel in scampering out of the shaft on Troilus; there was enough left to level her off a little and flop her in on her belly, just going to beat hell. Beryllium squealed with its characteristic tearing sound, but somehow we came to a stop on the tundra without balling up into a complete heap of scrap-iron.

FORTUNATELY, my smoke-message had been seen, and IPO Jupiter had been radioed from the satellite that had picked the message up. They had tracked me down with radar, and I didn't sit huddled up in the wreckage very long before a 'copter came chop-chopping through the gloom to fish me out and make for Olympus, capital city of Jupiter, where IPO's main Jupiter office is located.

When my knees quit shaking and I began to think again, I gave Foran this:

FORAN IPO NYC PILE LOCATED TWELVE OH EIGHT TROILUS BELIEVE OPERATORS MAROONED THERE NO TRANSPORTATION MERINO KILLED APPARENTLY BRAINS OF ORIENTAL PLOT RETURNING NYC IMMEDIATELY X THIRTY TWO OH SIX

I got his return message on Europa where I caught a packet bound for earth:

X THIRTY TWO OH SIX CARE IPO JUPITER (FORWARDED) REPORT TO ME



IMMEDIATELY ON ARRIVAL FORAN

That was a message to roll around under your tongue. Our packet took 160 hours back in, which gave me just about a week to consider how thorough a job I would do on Foran. He deserved no mercy from me, after attempting to block me at every turn in the path. We hit New York about ten o'clock in the morning, New York time; after clearing Traveler's Control, I 'coptered directly to Yonkers, looking a little gloomily down on the glassy slag that smoothly coated Manhattan Island—and at the infrequent pressure-domes denoting the entrance to the huge underground warrens in which the city lived. After the usual security-precautions, I tubed down the East Side to Foran's office.

He hadn't changed any while I was away; he still looked gray, slight and sleepy. His fingers were interlocked relaxedly in his lap as he slouched in his swivel-chair. His gray eyes

looked me over pretty well before he said anything.

"You don't look very spent."

"Not your fault," I said; "I'd look fresher if I'd had more help."

He showed a mild, dis-interested kind of surprise. "More help?"

"Yes. You've been fighting me every inch of the way since I left," I told him. I gave him my hardest glare. "Anything to discredit me and take the sting out of my report, Foran—that's what you've tried to pull. You'll get a big kick out of that report."

"Isn't the shoe on the other foot?" Foran asked.

"Your radio from Europa very nicely confirms my report of assigning you to the case." He smiled dimly.

"Don't make me laugh," I told him; "I'm hep to your little game with Harding."

Foran chuckled softly. "Did you ever read the radios Harding and I exchanged?" he asked, looking at me on the bias.

I didn't answer right away. He looked a little smug. "No," I finally told him. The Harding-Foran Axis was smoother than I had guessed.

Foran carefully separated his fingers, leaned his elbows on his desk and bent over to peer into my eyes. "I'm no fool, even if you think so; and Harding has been wiping the noses of punks like you since you were in the grades. Those radios were very carefully prepared; you can't pin a thing on us."

For a minute there was a sinking feeling in my stomach. Then I knew he was bluffing. "You still have some talk explaining to do about your lousy system here," I told him; "none of this would have been necessary if you had been on the job."

**FORAN** nodded without rancor

"Why, yes," he said. "If I am forced to. But so do you, young man, about some of the dumb chances you took. Your little caper wouldn't stand five minutes of tactical review.

You came through by main strength and awkwardness. And did you run up a bill!"

I suppose I could have made a crusade out of it. There was no doubt Foran's operation had been sloppy. I could prove it; I could probably cost him his job. But he was an experienced fighter—he would probably take me with him. And I knew I had thrown a stiff enough jolt into his ribs to make him sit up and take notice. Already, I was sure, the leaks in his system had been plugged with a lasting cement. From the bigger point of view, I had already won the battle.

The big guys smile when they take their licking. "Okay, Foran," I grinned. "I'm mighty grateful for the experience and advice I have had all the way through this caper. I'll bring up a draft of my report and we'll do a little mutual filling-in of the gaps, eh?"

Foran merely smiled his assent, gray, slight, and silent.

I went back to my office. The invoices were still there, leaning in dusty, drunken stacks on the corners of the desk. The windowless walls seemed to come in closer, box, me in. I was tired; I was a little defeated. But one thing I thought I could get out of Foran. I decided that I had sworn Whitey in as a deputy before we walked over to the dome.

Foran would decide I had done right; there was no reason why Whitey's folks shouldn't get an IPO pension.

That wasn't enough of a fillip to my jaded spirits. I felt like a drink; I felt like a bunch of drinks. And I knew a good place to go—where it was nice and quiet and homey: where nothing ever happened; where they wouldn't try to sell you cigarettes at a credit a pack, or fluffy dolls, or photographs. I could just sit there and get quietly stinko. I locked my safe and left for *Merino's Dugout*.



"We're being conquered



by a race of creatures  
we've dismissed as  
completely harmless!"

Here is a powerful feature  
story of worlds to come

## THE TIMELESS ONES

by Eric Frank Russell

it leads off the big  
November issue of

**SCIENCE  
FICTION  
QUARTERLY**

# BLOOD LANDS

By Alfred Coppel

Kenyon felt sick as he wiped his lips.



—drums beating in the feather forests and a wailing in the wind as the red sun sets protect us o father for the past men have returned and we are afraid a deep sullen surging of the soil and a wordless reply of alien anger mixed with pain our father rages whisper the chants leave us alone you

men of space what have we to do with you now?

•  
**T**HE RENDEZVOUS was well away from the charred, stinking area that had been burned

"You will never take us away from our land, men from the stars . . . and no one who has touched this, our sacred land shall ever leave it!"

by the starship's landing. Kenyon stood on the edge of a plume-grove that grew down to where the tideless sea lay red and shimmering.

He looked back, cursing the flatness of the island. The spire of the starship commanded a complete view of the territory; there was no place to hide. Kenyon knew that anyone who wished to do so could spy on him easily as he stood waiting for Elyra to come out of the grove.

Not, he told himself defensively, that there was any good reason that he should hide his doings with Elyra. Affairs with native women—while not considered in the best taste—were common enough among starmen. It was simply that the mission here was one of repatriation rather than exploitation, and all members of the expedition had been warned against forming liaisons that could conceivably become embarrassing situations when the natives were moved off Kana.

Kenyon shifted his weight nervously from one foot to another, peering through the picket of quills into the grove. He would have liked to go into the grove to meet the girl, but it was something he had never been able to bring himself to do. One didn't take chances on a planet like Kana—one that had retrogressed from technology into legend-worshipping semi-savagery. And there was that unanswered question about cannibalism...

Not Elyra, Kenyon thought quickly; that wouldn't be possible. After all, the mission had been on Kana only a few days. It was only a matter of time until the riddle of the native food-supply was solved.

A soft rustling of the plumes warned him of her approach. Native or not, he reflected, she was a handsome thing. Odd about the red hair—they all had it, men and women alike. And the grey, almost cold, eyes. But there was nothing cold about her body; it was lithe and supple, burned golden by the light of the red sun. Her costume showed most of it, and Kenyon could fully appreciate the

rippling play of muscles under the satiny skin as she walked.

She paused at the very edge of the grove, solemn and unsmiling in the slanting light.

"The sunset comes, Kenyon," she said.

Her greeting was always the same. A dwelling on the ending of a day, the fading of light from the sky. Kenyon unconsciously looked toward the east, where the first pale light of a star was breaking through the rusty glow of the sinking sun. Stars were pale on the Edge, he thought vaguely. It filled him with a sense of distance, of vast empty spaces, of the parsecs that separated Kana and its red star from the teeming worlds of the inner systems. Little wonder it had been lost for so long...

He shivered slightly and smiled at Elyra. "Shall we walk by the sea?" he asked. "I've brought something for you—a gift."

Ordinarily, the promise of a bauble would have brought a smile to her face, but she remained solemn and, it seemed to Kenyon, unduly aloof. "Tonight you were to walk in the forest."

Kenyon frowned. He had promised her, and she had remembered.

IN THE FAR distance, on one of the islands across the red water, a drum began to beat with a deep, thudding insistence. A sense of alienage filled him, and something akin to fear—though he knew nothing that should bring such feelings into a starmen's mind. All the teeming billions of a starflung culture backed him with power and machines. There was nothing in the inhabited galaxy a starmen should fear; yet Kenyon *was* afraid—he knew it. Afraid of this watery world and its islands. Perhaps he was even afraid of Elyra.

"We have walked by the sea," Elyra said, still standing apart from him, "and now we should walk in the plume-forest. You have come here

from the sky to take my people from Kana—"'

There was little point in denying this, Kenyon realized, since both Bothwell and Grancor had already announced it to the island chieftain. Manpower was needed in the industrial combines of the inner worlds. It was wasteful to let humans rusticate on a world without commercial value like Kana.

"—I would take you by the hand," Elyra continued in her quaintly-accented and archaic *lingua spacia*, "and show you why my people have no wish to go."

Kenyon's eyes widened at that. No native had yet offered any of the mission's three members a reason for their reluctance to leave Kana. This was the first apparent break in a wall of courteous passive resistance. If he, Kenyon, could be the one to convince the chiefs that they should urge their people to board the starship without coercion and bloodshed, it would be an excellent mark in his record; it could lead to better things than herding troglodytes back into the fold of the galactic State.

"Wait for me, Elyra," he said. "I will be back before the sun is fully down, and I will go with you into the forest."

She smiled, showing sharp white teeth.

Kenyon shuddered slightly and turned back toward the starship. Into the forest he might go, he thought bleakly, but not without weapons—and not without Bothwell and Grancor knowing what he was about to do and where, in the service of the State.



EVEN IN the cargo-holds—the huge pens intended for the natives of Kana—he could hear Grancor and Bothwell arguing.

Bothwell: "You bloody fool—you aren't even able to tell me what happened to the blasted barges! Even a

thousand years in this climate wouldn't destroy them—let alone a mere four hundred. So where are they, then?"

And Grancor, in his dry and acid-tinted tones, like those of an academy professor: "Obviously, my dear Bothwell, when the islands formed they were no longer needed. They simply sank them."

Kenyon paused to listen. It was a perpetual argument between the older men, and one he thought both fruitless and exasperating. One he had no wish to join.

It had begun with the planetfall, and the discovery of ten thousand islands in the shallow sea that had once—according to the book—covered the entire planet of Kana.

Five hundred years ago, in the first flush of stellar colonization, Kana had been populated with human beings from the inner galaxy. Since no land of any kind was available, and since there was a ready market for gold salts and nitrates that could be extracted from Kana's sea, a first-stage barge-culture was established. Floating villages, hydroponics, an essential and highly-developed technology. And then came the interregnum—a commercial interregnum that found the products of Kana unneeded. Trade fell off, and eventually the planet and its people were forgotten. A lost colony. It took five hundred years for the manpower of Kana and other worlds like it to become valuable enough to send repatriation missions out to gather it up and bring it into the industrial combines.

Yet the Kana planetfall brought some surprises to Kenyon and Grancor and Bothwell, the mission's nominal head. The barges were gone, the inhabitants strangely changed and uncivilized, and a million islands where none had been before.

"Vulcanism is out," Bothwell was declaring. "Kana and the Kana sun are too old to support that kind of thing."

"You don't know," Grancor said

drily; "you are a starman, not a geologist."

"I'm no agronomist, either," belied Bothwell, "but I can tell you nothing grows here but those damn feathers!"

"They only *look* like feathers," Grancor said, "you've seen stranger growths—"

*Isolation, thought Kenyon, is sharpening their natural antagonisms. Isolation and jaiture. A failure that neither of them will face up to.* He knew that, in a matter of days, Bothwell would blow up and order the Kana natives herded into the starship's holds by force. They had the weapons, but somehow Kenyon dreaded taking such a step; there were dangers on Kana that none of the three men from the stars had yet recognized—he was sure of it.

He armed himself and went up the ramp toward the bickering voices; it would be a pleasure to interrupt them.

BOTHWELL looked up as he entered, a frown on his craggy face. Kenyon decided again, as he had every day for weeks, that he didn't like Bothwell.

"And where do you think you're going?"

"Where indeed?" murmured Grancor. "Booted, armed and armored, our young colleague goes to meet his pretty savage, of course."

Kenyon flushed. "Since we seem to be wasting time here," he snapped with some bravado, "I'm going into the forest to talk to the chief."

"Is that wise?" Grancor asked Bothwell.

"Let him go," the big man said. "When he's convinced talking won't help, we'll go out with blasters and herd the trogs into the ship."

Kenyon forced down his anger and turned away. At the bulkhead, he stopped, unwilling to go without asking their help, and hating to do it. "Please guard the command chan-

nel," he said casually. "I'll report any progress by radio..."

Bothwell let out a hoot of coarse laughter. "Progress! Into the forest at night with his pretty trog and he wants to keep us informed!"

Kenyon turned on his heel and almost ran out of the ship, his face burning. Damn them both anyway!

The sun was down and a thick dusk hung over the island. Kenyon's boots sank into the stinking, burned soil as he went, making him stumble. *Like a red, unhealed scar*, he thought. Typical of the improvements made by man on the worlds he exploited.

Elyra was still where he had left her, waiting in the shadow of the tall plumes. The drums sounded louder, their leaden beat drifting across the darkling water of the sea from island to island. The last bloody light was fading from the sky.

Without talk, Kenyon took the girl's extended hand and together they vanished into the forest of waving plumes.

•

*—the night wind and drums in the forest a feeding circle forms to greet a past man from the stars and the anger in the throbbing beat underfoot grows dark and hungry wait the plumes whisper he is coming wait the soil says he is coming to us your father will care for you and feed you and you need not go out among the stars I will protect you—*

•

IT SEEMED to Kenyon that they walked for hours through the darkness. He was conscious of a growing excitement in Elyra, of a feeling of triumph and anticipation. He thought of Grancor's speculations on cannibalism among the Kana people and a sick thrill ran through him.

As they reached a clearing in the forest, the drums stopped; silence

fell like a blow. Elyra turned to face him, her eyes wide and dark in the shadows.

He struck a match and lit a cigaret, sucking the smoke deep into his lungs. Elyra flicked her tongue over her lips and Kenyon noticed its sharp tip. He almost succumbed to an impulse to turn back, but the thought of Bothwell and Grancor laughing at him held him where he was.

"Be steadfast, Kenyon," Elyra said, as though she had guessed his thoughts. "Be brave and above all—be wise when you meet the father."

"Father?"

She stamped a bare foot on the resilient ground impatiently. "The father, Kenyon," she said again. "The great one who came to my people after yours had deserted us—"

There it was again, Kenyon thought—that schism between the people of Kana and the rest of the inhabited worlds. *Your* people. *My* people. As though the birth of a legend of gods from space had changed the inhabitants of Kana into something apart from the rest of the human race.

"There are no gods from space, little one," Kenyon said gently. "Only more men."

"The father is not a man," Elyra whispered. Kenyon could almost feel the mystic calm that descended on her as she contemplated the legendary past. "Long ago, when the people of Kana lived on the sea and were dying, the great gods came to us and fed us and made us warm." Her tone grew scornful. "*You* would not understand me; I cannot make you understand. But the father will speak with you, I am sure, and you will know why our people must remain here for always."

"No," Kenyon said. "One way or another, your people will come with us. You are needed elsewhere."

She laughed at him. "When time ends—when the red star dies—we will be here on Kana. *And so will*

*every man who touched the sacred soil...*"

She stood on tip toes and kissed him, and Kenyon felt a stinging pain on his lips.

"Savage!" He stepped back, wiping blood from his mouth where her sharp tongue had pierced his flesh. He struck her across the face, hard, and she fell. It came to him in a sickening flash of compulsion. Not cannibals—vampires. He felt his stomach heave convulsively. That descendants of civilized men could become so depraved was unbelievable.

**G**RANCOR and Bothwell had to be warned. He keyed his pack radio with the message and waited for a response as Elyra watched him from the shadows. There was no response. Damn them! Were they guarding the channel or weren't they? He had no way of knowing.

Elyra laughed. The sound of it was infuriating. He drew his blaster and pointed it at her. "Lead the way back," he commanded with more confidence than he felt.

For answer, she laughed again and vanished into the darkness of the thicket of plumes. Nightmare! Kenyon fired blindly, searing a path through the feathery growth. Again, laughter.

And then a sudden thudding rush of naked feet, and hands laid roughly on him, clawing, beating. He screamed with fright, threshing about in the grip of strong arms. Then there was a stunning pain at the base of his skull and darkness, deep and black as the night of space itself.



When Kenyon awoke, he lay naked in a clearing lit with torches. All about, a sea of faces—the people of Kana. Someone was beating a drum, very softly, with an insistent and hypnotic rhythm. His bare flesh touched the ground, and for the first time, Kenyon was conscious of the

peculiar texture of the soil. Smooth, but warm with some kind of latent, inner heat.

The entire tribe of trogs was swaying, self-entranced by the drum beats and the smoky night. Kenyon could hear their murmured chant, made endless by repetition:

*"—wake father wake father wake father—"*

Kenyon tried to sit up, found that he could not. Unseen, fleshy bands held him firm to the ground. Panic stirred in him, and he suppressed it with all the power of his will and training. He twisted his head about to see if he could find Elyra in the sea of faces, but she was indistinguishable from any other woman. All were naked, all were swaying in their ritual chant. The very air seemed to vibrate with the beat of it.

Kenyon twisted his head aside and froze with horror. Not ten meters from him a stump of a man stood upright—

—no, it was not a stump at all—but a native buried to the armpits in the ground. His eyes were wide open and his mouth worked convulsively. The soil itself was pulsating slowly as the man sank steadily downward.

The man screamed. A liquid mumbling wail that broke into jibberish. A yell erupted from the gathered trogs.

*"—father wakes father wakes!"*

Kenyon, eyes bulging, lay stiff—waiting for he knew not what. The sinking man raised an arm like an automaton, pointing directly at the captive. As though something had taken control of his vocal cords—something alien that found speech a clumsy thing—the man spoke in a hollow, ragged, sepulchral voice.

*"You—man from the stars! Why have you come here?"*

Kenyon could not reply.

*"To steal my people. To take them from me,"* the accusing voice thundered. *"When their own kind deserted them—I came across parsecs of space—across the gulf between the*

*galaxies—to live with them and care for them. And now you think to take them away?"* And the buried man laughed. A hollow, booming, awful sound in the firelit forest. The trogs echoed his mirthless laughter.

—it's a trick, Kenyon thought. Hypnosis. Or I'm going mad. I thought the whole world was speaking through that man's mouth—

The man swept his arms about in a wild circle. He shouted at the trogs: *"Eat! I feast! Join me, eat!"*

Kenyon struggled against the bonds that held him, panic surging in him. But the trogs did not attack him with their sucking, pointed tongues. They bent over, pressing their mouths against the ground, plunging their tongues into the soil. The buried man screamed once more and vanished, with a wet, sucking noise.

The whole thing leaped into focus in Kenyon's mind, like a picture forming. The soil, the earth—the islands; that was the father. A race of beings from across space, finding refuge in the shallow, warm waters of a world abandoned by the humans of the inner galaxy. Huge, plumed beasts, willing to live in a ghastly symbiosis with the men they found on Kana. Giving them the blood of the land to eat, and taking in return the flesh of men. It was sickening, horrifying. Kenyon could imagine the people leaving the barges for the islands they could see rising in their ocean, and eventually living like parasites on the blood under the tawny skin...

**W**ITH SICK disgust raging in him, Kenyon threshed about, fighting tooth and nail to free himself. He had to get away—out into the cold, clean dark of space—away from this nightmare of alien and human depravity.

And then suddenly, he was free and running through the forest, with the naked horde of trogs running behind him, torches blazing.

The awful plumes tore at his flesh,

the hot pulsing soil of the island softened to slow him. He could hear himself screaming in mixed rage and terror as he fled.

He had to get back!

Back to warn the others!

Back to the starship and cold clean metal under his naked feet and sanity again.

Behind him the trogs howled, and the dark forest echoed their cries.

And at last he was running across the burned flesh of the area of the starship's landing. A ragged, crater-like puckered mouth. The ground rippled and heaved in anger. Kenyon stumbled, fell. Picked himself up again and plunged into the open valve with a sobbing, rasping cry.

Grancor and Bothwell sat in the control room, their faces white. They did not move when Kenyon stumbled into the cabin. They did not speak as he babbled his story and yelled at them to lift the ship.

"You've gone mad! Can't you understand what I'm saying? We must get *out!*"

When they did not respond, he took the controls himself and closed the relays. The rockets did not fire.

There was a sinking sensation to

the deck. Kenyon felt his sanity totter.

Grancor took him by the arm and led him to a port near the still-open valve.

"Look outside," Grancor said gently.

"You got my message," Kenyon said.

Grancor nodded.

Kenyon stood in the open port, looking out.

The sky was reddening in the east, and in the crimson light the plumes were waving agitatedly. The ground was close. Too close. The red, mutilated mouth had closed on the ship. Kenyon remembered the buried man with a thrill of horror. The ship was sinking. In another few moments it would be completely ingested.

Kenyon was conscious of the nearness of a supernal, mammoth intelligence. It hungered.

Grancor and Kenyon stood in the open port, watching the silent circle of trogs that had formed around the starship. They felt their craft sinking slowly, down and down—into the bloody, living land.



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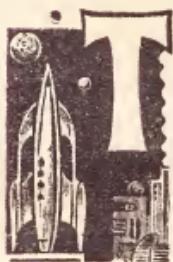
Myru e Chib cautiously flashed the light into the building entrance, as the Earth-men held their weapons ready . . .

# KNOWLEDGE IS POWER

Novelet of Cosmic Irony

By H. B. Fyfe

It's a nice phrase, and there's a sort of "truth" about it — but you have to ask which knowledge and what kind of power?



THE YELLOW star that warmed the surface of Vunor had not yet climbed above the low hills outside the city when Myru e Chib crept from his cane-and-mud hovel. He shivered in his ragged gray tunic and tried to hug his four arms about him; since two of them ended in blunt stumps, this was difficult.

"Good morning, Loyu e Huj Keviu!" he murmured in a droning voice. "May you suffer no mishap this day!"

He stared hard at the wooden roof of the ruler's clay-brick palace, where it glinted in the dawn-light above the surrounding one-story buildings at the center of Fyogil. Then he looked down at the pair of eight-digit hands left him. He started along the dusty street toward the guard-post placed where the city met the fields.

It was, after all, necessary to beg his food for the day if he wished to walk out across the plain, later—to the Terran spaceship.

Myru trotted along the unpaved street on two thick legs that were less flexible than his arms, because the joints between the four-inch sections had adapted to support considerable weight. Though the Vunorian was only three-quarters the height of the Terran explorers, who had recently landed from the stars, his trunk and neck were comparatively much thicker. His scale-coloring was average among males of his kind—dull, dark blue on limbs, back, and head, but grayish white in front.

His head was broad, with a heavy bony ridge circling front and sides above the four eyes; he breathed through air-vents situated over each corner of his wide slit of a mouth. Short tendrils projecting from the air-vents carried his auditory-nerves.

As he moved along the street, he turned his head slightly from side to side, for ease in scanning the sides of the thoroughfare. On each side of his head, under the bony ridge, was a burn scar where his side eyes had been.

Approaching the guard-post, Myru slowed prudently.

*Lest I be thought a runaway thief, he thought ironically, though it is famous that I have never been caught with any stolen object!*

A single sentry leaned forlornly on his two spears outside the clay-and-wood barracks. Myru eyed the soldier's thick tunic and cloak enviously; they were colored a deep crimson and looked warm.

Noticing Myru, the sentry turned deliberately, and strolled away a few steps, as if to look across the plain toward the hills where the Terran spaceship had landed. Myru slipped past to the rear entrance of the building.

FIVE OF the Keviu's soldiers were grumbling over their meal at a

long table. One, Squad-master Rawm e Deej, winked the eye on the left side of his head toward an adjoining room.

Myru entered it and found oil and cloths in a small locker. He set to work polishing the long-bladed spears in a rack, and finished by brushing off the spare sandals of wood, topped with closely-woven cloth. As he worked, he heard the soldiers leave their meal. Myru peeped out when he was sure that the sentry just relieved had gone directly to his pallet in the sleeping-chamber; Rawm lingered on his stool, having dispatched the common soldiers to their posts.

"There is soup in the big pot," he said as Myru moved about collecting leftovers, "and I doubt that anyone wants the rest of that bread."

Rawm poured out the soup into a bowl, but slipped the stale bread into a pouch hung from his rope-belt. He would be expected to clean the pots; but with his evening meal in the pouch, he could stay as long as he wanted, out near the ship. He wished that cleaning the weapons could be made an excuse to stop at the guard-post more often.

Rawm e Deej sat silently by, while Myru drank the soup. Neither referred to the fact that they were cousins, though Myru knew that otherwise he would not have been permitted there; should Loyu hear of it, Rawm would certainly be dismissed. Nor did they mention that Myru had been the other's captain, before he had protested too violently the Keviu's decision to seize his mate, Komyll.

"You go again to the Terran ship?" asked Rawm.

"Yes. They are teaching me their talk."

"Indeed?" Rawm made a hissing exclamation through his air vents. "What sort of beings are they? I was not with the procession when the Keviu went out to view them."

"They say they have come only to explore Vunor, as they study other

worlds among the stars. They are tall, heavy, scaleless, and look funny—with only two arms. But let me tell you, they have some fanciful machines in that ship."

"They let you inside?" Rawm demanded. "I thought they told the Keviu their air was unhealthy for us!"

Myru glanced about to ensure privacy, turning his head awkwardly because his side-eyes had been blinded. He knew he could trust Rawm, but one never knew about others; one more session with Loyu's knife-men would indeed be costly.

"I do not think they would like it known," he murmured, "but their air is nearly the same as ours, except not so fresh; their world is much like Vunor, though bigger, they say."

"Indeed?" Rawm hissed again in surprise. "I am happy that our seamen have finally proved Vunor a sphere. At least, we need not appear too ignorant to the star beings."

"Hoh!" said Myru in amusement. "I am not so sure of that! If they thought us so wise, they might ask us about the land and its animals; instead, they pluck up plants, dig rocks, and send me to catch small animals for them to cut up."

"They do that?" exclaimed Rawm. "Why?"

"As I say, they value the seeking of knowledge. Which reminds me—perhaps you could sell for me some things they traded me for my catch. It would not look well for me to be seen in the market-place with such fine knives, or the little needle they say is better than our compasses, or the jewelry."

"They gave you jewels?"

"Hoh!" said Myru. "They are glass, such as our sailors take to the island savages, but of beautiful quality—good enough for the Keviu's harem even."

He paused, with a twinge of remembrance and hatred. "Some," he forced himself to continue as Rawm considerately lowered all four eyes,

"are of metal as fine as real silver."

"Well, bring me something," said Rawm, "and I will try. I remember arresting a certain lender of silver a time ago, for buying thieved goods. He owes me the favor of saying I took them from the thief."

He noticed Myru's expression, and fluttered the eight digits of one hand in protest. "I had them both and one was enough," he said. "Would you have me toss away a chance to buy us some decent food? That monster in the palace needs a good, smart spear-thrust through the money-pouch!"

He stopped suddenly and looked about with all eyes; Myru began to collect the pots and bowls for washing, as if he had not heard. Rawm sighed, and stomped out in his wooden sandals.

**WHEN HE** had earned his meal, Myru slipped out the back door and started across the fields toward the hills.

He watched the road for a while, until he saw that no carrying-chairs of court favorites were moving along it. The Terran ship had been outside Fyogil for eleven days now, and the novelty was wearing off. Myru shifted over to the road and fell into a monotonous, shambling trot.

When the dark green foliage of the thick-spreading hill-trees loomed before him, he turned to his right along a freshly-beaten trail through the brownish stubble of an old grain-field. The Terran ship reared its gleaming height above a charred circle.

Richter and Kean were talking near the ladder to the exit port. To Myru, their voices had a sing-song quality, soaring upward on questions like a female's and dropping to deep, chesty tones at other times. He waited respectfully to be noticed.

"Hullo, there!" said Kean. "It's our pal, Mumble-Mumble."

"I am Myru e Chib," said the Vunorian, humoring them in case they really had not recognized them.

He had, he reminded himself, difficulty in telling *them* apart, except for two or three. Richter, who dealt with substances, had bright yellow hair atop his head; one of the five who drove the ship had reddish. Lombardi, who dealt with plants and was the thickest of the Terrans, had none. To identify others except Kean, Myru had to look twice.

"All ready to find us something new?" asked Kean.

"Yes," said Myru.

Kean was the one who had told him he was glad to hear that there was no life—but for a few great fish—on Vunor larger than the planet's dominant race.

"Come in," he said, turning to the ladder, "and I'll show you what I want."

He climbed nimbly upward. They had told Myru that they came from a world where everything was slightly heavier; but the Vunorian thought he could have climbed faster than the Terran—were he not lacking two hands that Loyu had ordered chopped off.

*Three years now, he thought, following Kean up the metal rungs. Some day, I will pay him back! May he suffer no mishap till that day!*

He wondered about Komyll, remembering the beautiful purplish tints in her scales and the way she had cried out when the Keviu's soldiers had dragged her to the palace. Yet, he also had to remember seeing her ride through the streets beside Loyu; she had seen Myru lurking furtively behind the glumly cheering crowd, and turned to the ruler with an amused "Hoh!"

*Has she forgotten? he asked himself. But no—she only hid her feelings lest he revenge himself further upon me.*

Kean entered the ship, and Myru gave his attention to recalling the little of the Terran language he had been taught. He was glad he had been outside the city when the spaceship had landed. With little time to spare

from their research, the visitors had bothered to teach their speech only to Myru, so far, and he planned to profit by it if he could.

"I'll show you a group of the rodents you brought in," said Kean, leading the way up another, interior, ladder. "I'd like more if you can catch them. Also some of the river-fish to compare with the ones from the ocean you bought from your fisherman."

*If he knew how I "bought" them!* Myru reflected.

## 2



EAN SLID open a door and they entered his laboratory. Myru looked at the remains of three of the small animals he had caught for the Terran. The *pori*, which was as high as Kean's knobby leg-joint, had been put together again—although its inner organs were to be seen on a shelf, floating in bottles of liquid. Perhaps it had been stuffed, Myru decided. The other specimens were still dismembered.

"These are the ones," said Kean. "Can you get more?"

"I think yes," said Myru.

"They appear to belong to the same family. In fact, if you will forgive my saying so, their structure—to judge from externals—resembles yours; it is also to be seen in a less-developed stage in the fish."

"Your words have great interest," Myru told him, "but why do you seek such knowing?"

Kean showed amusement by what the Terrans called laughing. "What else is worth having but knowledge?"

"Power," answered Myru promptly, thinking of Loyu e Huj.

"Knowledge is power," argued Kean. "Could all your workers or

soldiers make a ship like this? They have strength, yes; but we made it because we had knowledge."

"By yourselves?"

"No, of course not. By 'we,' I mean our civilization. What this expedition learns about Vunor will be only a small item in the information available to others in our culture. Yet, it would be a long time before another expedition visited here to report whether the planet might be good for a colony, or a repair-station, or for minerals."

"As you say," agreed Myru.

"But one never knows when having the facts on hand might save a lot of trouble. That shows you why it's a good policy for everyone to observe what he can and to collect knowledge. If it isn't exactly power, at least it creates power."

Myru made a sound of assent, and looked thoughtfully at the dissected specimens.

"How about birds?" asked Kean. "We have seen some flying above the hills."

"They are beyond me," said Myru staring unhappily at the deck. "Perhaps I can find a more agile fellow to hunt them."

"No matter," said Kean. "You can take me through the hills with a shotgun, and I'll get some myself."

"Shotgun?"

"One of our minor weapons—like a rifle. We carry them for hunting, just as we carry grenades, bombs, and rocket-torpedoes in case of real trouble. How about going into the hills now?"

Myru hesitated.

"What's the matter? Didn't you say there wasn't anything big enough to hurt us?"

"Well," Myru answered, "in the hills I thought not to go. I do not like it with only a club. There might be a *knugh*."

"A *knugh*? What's that? Dangerous?"

"Not very high," Myru told him, "but thick and very...very—"

"Vicious?"

"I think yes. Maybe I can show you where to look, since you have weapons."

Kean laughed in the Terran manner. "We'll have a look now. I'll bring a shotgun and a rifle in case we meet anything like your *knugh*."

He sent Myru to wait on the ground below. In a little while, he came down the ladder with two strange objects, which Myru took to be the weapons mentioned.

"Hey, Richter," called Kean. "I'm going out with Mumble to get some virus. Want to come?"

The yellow-haired Terran declined, but suggested that some of the others might go. Kean spoke into a little machine connected to the ship by wires, and was soon joined by two more Terrans. One was Lombardi, the thick one.

**T**HE PARTY started off. As Myru led them into the hills, he saw that Lombardi was more interested in shrubs, trees, and blossoms than in helping to find birds. The third, called Harris, continually scampered off to chip at rocks.

"Why does he do that?" Myru asked Kean.

"To see what your planet is made of. It is really very much like our own, enough to make an extremely convenient colony."

"Colony?"

"A place for some of us to live in this part of the Galaxy so our starships would have a supply base."

"As you say," agreed Myru, but he was thinking hard.

He recalled the troubles that had followed the bearing of his own civilization to some of the outlying islands. It was told about the market-place that few of the island-people still survived, though Myru himself had once journeyed to the seacoast to see the great ships that sailed back with goods from the conquered lands.

By the middle of the day, he had

led them through the narrow range of hills. He now carried a number of birds Kean had shot down, and no longer leaped into the air at the report of the Terran's weapon. He was, in fact, wondering how he could manage to borrow the other—the rifle. He paused on the crest of the last hill, above the rolling dunes of the desert that lay beyond.

"Over that way," he said, pointing with one of his unmaimed arms, "lies the road to the mountain-cities. There is much sand in between."

"What was it, Harris?" Kean asked his companion.

"Hard to say just offhand," murmured the other Terran. "Not a sea-bottom. Maybe over-cultivated once."

"Did your people ever live out there?" Kean asked Myru.

"Long ago, I think. If you look that way...where the hills curve out...can maybe see old, old building sticking out of sand."

The Terrans squinted against the brightness of the desert.

"By golly, he's right!" exclaimed Harris. "What say we take a walk over there?"

"Not...like," Myru demurred. "It's too late. Be dark before we come back through hills. It is further than shows."

He thought Kean was not displeased; it had been a long walk. He let the Terrans make him promise to show them the ruins the next day, and they started back.

Before they parted at the ship, he offered to try hunting a *kungh* if Kean would lend him the rifle. The Terran leaped at the chance, although Myru thought the others were inclined to disapprove.

"What harm could it do?" demanded Kean. "It's only a super-slingshot!"

"Some...things...are good at copying," muttered Harris.

"Aw, suppose they do. What good will it do them against fission-torpedoes or automatic-cannon? Not to

mention the biological weapons we carry in case of mass hostilities!"

Myru listened with interest, but the others yielded to Kean's vehemence. Accepting the rifle and brief instruction in its use, the Vunorian withdrew. On the road again, he struck out for the city at a steady trot, pausing only once—to disguise the rifle in a bundle of dead branches such as he might openly carry home for kindling.

**D**USK FELL, shortly after he had reached his hovel, and Myru crept forth to seek out certain individuals among the riff-raff of the city; some, sniffing profit to themselves, were eager to obtain what he wanted. A few were annoyed at being diverted from their own little coups, planned to net them a money pouch or two.

None, however, bluntly refused Myru's request; for it was widely told that, though under the Keviu's displeasure, he still had the ears of former comrades among the soldiery. A prudent thief avoided unnecessary grudges.

Myru arranged that they should meet him in the hills at dawn with what they could steal. Then he went unobtrusively to the guard-post of his cousin, Rawm e Deej, and waited till that officer came out to make his last round of the night.

Myru attracted his attention and moved cautiously up the road.

"What now?" demanded Rawm, as Myru drew him into the deeper shadows of a spreading bush.

"I have had an idea," said Myru, and proceeded to describe it to his cousin...



Early the next day, Myru surveyed the sand-choked entrance to the old ruin. He held the Terran rifle in one hand. With his other uninjured hand, he beckoned the nearest of the score of ill-clad, shifty fellows behind him. "The old gate is still there," he said.

"See if you can push it open."

Three of them moved forward with an ill grace, but the curiosity Myru had been careful to leave unsatisfied kept them from grumbling too openly. They heaved and panted, and the dried wood of the gate squeaked in protest.

Another of the band, a hulking fellow who had lost one of his front eyes, slogged through the sand to help. Myru recalled him as Yorn—a notorious robber who went by no name, but who cut throats efficiently nevertheless.

With the added weight, the gate rasped open reluctantly on its ancient hinges. When the others hesitated, Myru led the way inside. There was little rubble in the interior, which was a single chamber with bricked-up windows, such as might once have been a warehouse.

"Good," he approved. "Not much sand got inside. All right—everybody come in! There's nothing here to hurt. Bring the spades and brooms...and let me see what you have in your pouches!"

"You expect us to sweep out the sand?" demanded Yorn. "What ails your wits, Myru e Chib? Where's the profit?"

"There will be enough profit for all, and yet more," Myru retorted. "It is true I did not tell you how it is to be won. I will give you a hint—you will be shoveling more than sand!"

He glanced around at them, forced as usual to turn his head to accomplish it. They had gathered in a little group and were watching him uneasily.

*But far enough inside the gateway,* he thought, slipping two of his thin fingers inside the loop of metal guarding the firing lever of the Terran weapon.

"You are really digging at the foundations of the Keviu's throne!" he told them.

He saw that the idea scared them, and felt the old anger growing inside him. "Why not?" he shouted. "Are

you afraid for your lives? Look at you! Do you live so well it matters? Why not take a chance on becoming the masters instead of the outcasts?"

"That's all very well, Myru e Chib," said an ugly fellow with dull, greenish scales, "but how is this wonder to be done?"

"By you—and some others I know of—doing what I tell you," snapped Myru. "Believe me, I have planned carefully."

"Hoh!" said the green-scaled one.

He turned toward the doorway, through which the heat and light of the desert reached in like a fiery hand.

"Wait," suggested Yorn, the robber. "He may know *something* of value. No harm counting what is in his money-pouch before we pass him by."

The other paused, as did two or three who had drifted after him.

"First," said Myru quickly, "I have you; and there are more such as we in the city who will follow the glint of silver past the spear points of the Keviu's guards."

"But such long spears they have," murmured Yorn.

"Secondly," Myru continued, "though I will speak no names, I know a few soldiers, who in turn know others; they are nearly as hungry as we."

There was a shuffling of feet at the reminder of his contacts, and other signs of awakening interest. He even heard a few admiring grunts of "Hoh!" His former position and the cause of his dismissal were common knowledge.

"And thirdly, I have the friendship of the Terrans, who are very knowing people and have in their ship such weapons as you have never imagined."

The green-scaled one hesitated at that. "Have *they* promised you help?" he demanded.

"Not yet," admitted Myru, "but I will arrange—Wait!"

But the other had turned to the exit once more. Yorn sidled forward with

a worried expression, two of his hands groping at the rope-girdle of his faded blue tunic for the notorious knives he carried there. "He will tell," he murmured.

"I warn you, wait!" called Myru, but not very loudly.

Something in his tone impelled the deserter to look around. Myru pointed the Terran rifle at the silhouette against the bright sand, and pulled the firing-lever.

The report echoed between the clay brick walls, freezing the group of thieves in their tracks. It was followed by a meaty thud as the body dropped to the sand-veiled flagging and rolled a little way into the chamber. The finger of light from outside illuminated a purple-oozing hole above the eyes.

*Better than I thought I could do,* Myru congratulated himself. *How convenient of him to help me show the scum what power I hold!*

"Stop caressing my weapon with your eyes, Yorn!" he said calmly. "Mine it will remain, though I have other means of doing what I plan. Do I still sound crazed?"

"I would not say so," answered Yorn. "I think perhaps we will sweep out the sand now. The next I will leave to you."

### 3



YRU STOOD quietly aside as the robber served out brooms and spades, and pushed the others into a line across the hall to attack the layer of sand. Then he beckoned Yorn to join him beside the

pouches brought by the thieves. "Open them," he ordered, "and let us see what they found during their nightcalls!"

Yorn looked surprised at the variety

of statuettes of small animals or fish that had formerly decorated homes in the city, but he removed their protective-wrappings wordlessly and dusted off ledges about the hall at Myru's bidding. The latter followed him, setting the statuettes wherever they would fit.

By late afternoon, the interior was clear of sand; the walls, and a few stone tables put together after being dug out the sand, were populated by carvings of Vunor's fauna, Myru's henchmen slumped upon the cool stone floor to rest.

"I must go now, Yorn," said their leader. "Finish smoothing the sand outside so it will not look new, and have someone bury *that* before the heat makes it smell any worse!"

"Where are you going?" asked Yorn, with the assurance of the secondary command he had assumed.

"I must visit the Terrans," Myru told him. "If all goes well, we will return for a short visit—so I want you to have everyone out of here before dark. Wait for me tonight along the road to the city."

He paused outside, squinting in the glare.

*If anyone watches from the hills, I would never see him*, he decided, and set off toward them at a brisk trot.

Shadows were lengthening as he approached the Terran ship. Most of the aliens were sitting on the ground outside, about an open fire which they seemed to enjoy.

*As would I—if I lived in a palace,* thought Myru.

He edged into the circle of light and waited until he was noticed.

"Well, well, what brings you out here in the evening?" asked Kean.

"I think," said Myru, "that maybe you like to see the temple in the sands now."

"Now?"

"It is a good time. No one will

dare go there at night, being afraid of spirits."

Kean laughed before he could control himself in the interests of courtesy. The other Terrans exchanged glances in their head-turning fashion, and Myru knew that they were amused.

"All right!" said Kean. "I'll go see what it's like. Who else?"

The stone-chipper named Harris, and two others, decided that the tour might relieve their boredom; they went with Kean to get weapons. When they had made ready, Myru led them back the way he had come.

**I**T WAS DARK by now, and Myru had some difficulty until he reached to open expanse of the desert. In the light of the stars, his vision was at least as good as that of the Terrans, to judge by the number of times they stumbled. For the sake of impressing them, Myru cautioned them often to make no noise.

Finally, the party reached the ruined building. Warning the Terrans again to be quiet, Myru borrowed one of the mechanical-torches he had forbidden them to light in the open, and slipped inside. One flash of the cold-light showed him that all had been left as he desired.

When he judged that the Terrans had had time to become sufficiently uneasy, listening to the whisper of sand blowing in the chilling night-breeze, he padded outside and called them. Keane exclaimed in subdued tones at the sight of the statuettes facing him from every ledge and niche.

"What are they here for?" he asked Myru, as his friend wandered about in a group, examining the Vunorian "temple" and conversing quietly.

"It is a temple," answered Myru.

"Yes, of course! But why the animals? Say—*there's* a kind you never brought me!"

"It swims in the sea," Myru alibied. "The images? They were set

here by those desiring to honor their ancestors, or maybe to make them friends."

"What do you mean?"

"It is believed on Vunor that each person, when he passes, will be one of these...will become some animal...do I say right?"

"Oh-h-h!" Kean exclaimed with sudden understanding. "A sort of reincarnation. I might have guessed it!"

He had to explain the word to Myru. Then the other Terrans gathered around as the latter further informed them that the reincarnation worked only in one direction—animals did not later become people, so that one had no need to worry about one's offspring too. A new thought struck Kean.

"But why is it that this doesn't seem to bother *you*? You came out here in the dark when none of the other natives would, and you bring me specimens to dissect. How do you know I didn't cut up your own grandfather?"

"My male ancestors," said Myru, "belong to one of the fish clans. Besides—like myself—many of us have sunk to the point of not really believing it any more."

"Oh, I see," laughed Kean, apparently relieved. "How about the official...your whaddyacallim...Keviu?"

"He is very strict about it," said Myru. "Even to the point of..."

"Fanaticism?" prompted Kean, as if preparing to hear the worst.

"Yes, I think. He does not like anything new—even beings from the stars—and he has those in his palace with long, not-too-sharp knives to speak with such that disagree."

He could not tell whether Kean looked worried. The others muttered some words he did not know, but they were a good deal more quiet on the way back to their ship. Myru left them there, after promising Kean again to hunt for a *kuugk* the

next day, and trotted warily along the road to the city.

**N**OT FAR from the outlying hovels, he thought he heard a noise. Then a cautious murmur reached him. "Myru e Chib?"

"As you say. Yorn?"

The robber and the others flowed silently out of the darkness to gather around him.

"Are they willing?" demanded the three-eyed cutthroat, shivering in the growing chill of midnight.

"It takes but a short talk tomorrow to arrange things," said Myru cautiously. "Meanwhile, it would be well to make ourselves invisible against the rise of dawn. Are all with us?"

"Everyone!" replied Yorn, with grim emphasis.

"Remain so loyal," said Myru, "and each shall have the looting of a palace! But first, we must enter the city while darkness yet covers us; such a band approaching in the light would look suspicious."

"Any one of us, Myru e Chib, would look suspicious by daylight!" said someone in the darkness.

Myru snorted "Hoh!" with them, then told Yorn to follow him at a hundred paces. He headed for the guard-post, walking slowly as he drew near.

He did not see the sentry huddled against the wall until the fellow challenged him in a low voice. Myru halted instantly.

*A good sign!* he exulted. *Normally, he would shout out, caring not whom he caught.*

He approached slowly upon command and murmured his name.

"Hoh! Well met, Myru e Chib!" said the soldier, with the greater politeness than Myru had recently enjoyed. "I will tell Master Rawm you have arrived."

"Wait!" said Myru. "Tell me—is all well?"

"For us in this post, I can say

'yes.' Rawm e Deej has not told us more, but after a long day in the city, he returned with a cheerful look about him."

"Good, then! Call him, but pay no heed to any friends of mine you may see on the road!"

Within a very few moments, Rawm hurried out, breathing on the sentry's back.

"Myru!" he greeted his cousin. "Come inside! I have much to tell you!"

"First—have you room to hide a score of my friends?"

"A score of—" Rawm broke off to peer into the darkness. After Myru explained in a few hasty words, he said, "Bring them in quietly. They can find places for the night in the barracks. All my spearmen are ready to follow you."

"My cousin!" said Myru.

He moved a few steps down the road and called softly to Yorn. When the group had been guided into the unlighted building by Rawm, Myru drew the robber aside.

"Choose two or three well-known as secretive," he instructed, "and go into the city proper. With luck, you should be able to double your numbers from those padding the alleys. I will ask Rawm to send a soldier or two through the streets, so you will not be interfered with."

**W**HEN YORN had departed with a taciturn pair of thieves, preceded by a "patrol" of Rawm's guard, the cousins sat down in the kitchen room of the post. Rawm told a cheerful tale of disgruntled soldiery.

"Except the company of thirty-two palace-guardsmen," he added, after detailing those who had fervently sworn to aid in any uprising against the detested Loyu e Huj. "They will *have* to be loyal, for it is common knowledge that he has enriched them with the estates and wives of many he has had executed,

or has forced to flee into the desert."

"And the bulk of the military is with us, so easily? You must be more popular than even I hoped, Rawm."

"Hoh! Let me tell you something! You are not the only cousin in the city who has met the Keviu's knife-men; you just lived longer than most. There is many a score to settle!"

"Perhaps I had not noticed," said Myru, "for thinking of my own. May no mishap-befall the monster without me at his side!"

"Exactly as you say!" Rawn endorsed feelingly.

"And now," said Myru, "show me a sleeping-place. I must go to the Terran ship at dawn."

Rawm woke him while it was still dark, fed him hot soup, and sent out a pair of soldiers to see that the way was clear. Myru passed them just outside the city.

"Do not look so eager with those spears," he advised, "or things may be thought!"

"Hoh!" retorted one of the soldiers, cheerfully stroking the broad blades of his weapons. "They will be brief thoughts, then. Until we meet...Keviu!"

"Hoh!" murmured Myru in his turn, pleased despite himself. "Until we meet!"



He reached the Terran ship before any of the aliens had opened the round door in its flank, and squatted patiently beside the ashes of the dead fire while the sky grew bright. At last, the red-thatched crewman appeared, and climbed down the ladder to the ground.

"Hey, there!" he greeted Myru. "Looking for Kean?"

"Yes," said the Vunorian. "I have a tale for him."

The crewman shouted up to another who was just starting to climb down. The summons was relayed inside the ship, and Kean presently appeared. Myru discreetly led him

aside from the growing group and the equipment they were passing down to use in their day's pursuit of knowledge.

"I am sorry to take you to the temple," he told the Terran.

"Why?"

"I am told by a friend who serves in the Keviu's palace that an early worshipper saw our tracks in sand; the Keviu is sending soldiers to see."

Kean whistled, a sound unpleasing to Myru, and one which he interpreted to indicate concern. The other Terrans, when called over by Kean, also acted annoyed.

"Will they try to make trouble?" Harris asked Myru.

"The present Keviu is famous for his strictness. It is often said people wish there could be a kinder Keviu."

"Well, there *will* be, if he tries to monkey with us!" Harris threatened. "A couple of you fellows chase up the ladder and bring down a few guns and grenades. Pistols ought to do for these clowns."

"By the way," said Kean, looking at Myru, "where's the rifle I lent you to get a *kuugh* with?"

"I left it with a friend, an officer of the city guard."

"What?"

The others somehow looked as startled as Kean sounded.

"How come you know an officer so well?" asked one.

"I was once a captain myself," said Myru, hoping they could not tell how very far from that state his faded tunic appeared. "To tell the truth, I can claim to be relative of the Keviu—by mating...what is your word...marriage?"

"Yeah? Then why do you help us and take us to places like that temple?" demanded Kean. "How do we know you didn't report us yourself?"

"Hoh! Not likely!" said Myru. "After I caught small animals for you?"

"What has that to do with it?"

"I do not know your feeling," said the Vunorian with his best dignity,

"but I do not like to be cut up how you cut *them* up—which will be if the Keviu finds out! *His* ancestors are *pori!*"

"Jack," said Harris to one of the others, "will you get out a couple of rifles and grenades for the ten of us! This might end up nasty business."

Myru watched two of the Terrans hurry up the ladder.

"Of course, if *I* were Keviu, as friends would like," he said, still looking up. "I would not be so strict on some things. I have learned from you the good of getting knowledge."

Kean raised one of his two hands with a thick finger pointing at Myru. The others were quiet.

"And *you* are in line to rule the city?" he demanded intently.

"When the present Keviu dies," claimed Myru, feeling it was very likely going to be the truth. "It may not be so long, if I am truly told how many have said they would like to shorten his life."

"Wait here a minute!" said Kean, a trifle more abruptly than Myru thought polite.

## 4



THE TERRANS gathered into a tight little group and talked excitedly in their booming, singing voices. Myru strained to hear but the speech was too rapid.

*But I think, he told himself, that they see the value of "having eight fingers inside the palace," as we say. They must be planning a colony on Vunor.*

He was not disappointed when the Terrans regrouped about him. Kean opened negotiations with blunt directness. "Do you think our... influence... would help you reach a place of authority in the city?"

"It would, surely," said Myru, making certain they saw him stare hard at the weapons being brought down the ladder.

"And you say you would have a more friendly attitude?"

Myru looked into his eyes in a manner he had observed was much used by Terrans. "I admire much your interest in finding knowledge," he said. "If your knowledge is power for me, my power will be used to make more knowledge."

Kean's little mouth twisted in a pleased grimace, imitated by the other Terrans. One of them muttered something about having a tame dictator in their pocket, but Myru was careful to give no sign of having understood.

"If you only walk into the city with me," he suggested, "maybe we see how unlike the Keviu is. I have many friends!"

Kean hesitated, then seized a rifle. "Come on!" he urged. "If we walk in and there's nothing to it, we'll just act like tourists. If the little devil can really deliver—well, there's nothing like snapping up a good deal fast!"

"How about a guard for the ship?" asked Richter.

"Maybe we ought—no! Better land on them in town with everything we've got before they start nosing around out here. Detach the ladder and let it go at that!"

Two of the Terrans unhooked the ladder and laid it on the ground.

"All right, Myru!" said Kean. "Lead the way!"

Trotting loosely to keep up with the Terrans' long strides, Myru felt an exultation he had not hoped to experience for years.

*Soon, Loyu e Huj! he thought. Soon we will settle scores!*

Even should the day go against him, he could die comforted by the chance to take open action against his enemy.

At the guard-post, Rawm and his soldiers swarmed out to meet them.

The Terrans clutched their weapons, then looked pleased at Myru's reception. The spearmen and Myru's band of outcasts, swollen by Yorn's recruiting, were correspondingly impressed by his alien supporters.

"The chips are down, I guess," remarked Kean, Myru taking it to be some Terran proverb. "Let's move before this crowd is noticed."

*They know what to do, thought Myru, as if they have done it before, on other worlds.*

"As you say," he agreed. "Rawm, are the others posts ready?"

For answer, his cousin motioned to a soldier, who ran into the barracks. A moment later, a thick cloud of smoke issued from the chimney of the fireplace in the kitchen room.

"Now it will be a race," said Rawm, "to see who reaches the palace gates first!"

IT WAS easier than Myru had ever dreamed. The palace-guards, understanding the roar of the less favored spearmen streaming into the great square from all posts of the city, made a show of holding the gates. A few of the Terrans threw their little bombs.

When the smoke and splinters cleared away, there was an awed silence. Rawm, with his soldier's instinct for exploiting the moment, hurled a spear at a blackened figure struggling to rise from the wreckage of the gates. A louder roar went up.

Myru seized a spare lance from a soldier and led a mad rush through the palace halls to the throne chamber, where the quaking Keviu was pounced upon amid screams of triumph.

"Let me, Myru Keviu!" pleaded Yorn, brandishing two purple-stained knives as long as spearheads.

"Not so hastily," said Myru, holding his spear in one hand and letting the fingers of the other left to him rub gently over his stumps. "Escort him to the place of knives beneath the palace, Yorn. Tell the unspeak-

ables there that I may spare their lives if they are artful with him!"

Amid the rioting, he walked deliberately to the throne of silver and polished wood, and sat upon it. A fresh racket broke out. "What is that?" he asked Rawm.

"They have reached the harem upstairs," said his cousin. "I had better stop them before you are completely robbed of your inheritance."

"No," Myru halted him. "Pick out those who did well in the fighting and let each have his choice; you know which to bring to me!"

"Hoh! But I do!" said Rawm.

"And one other thing," Myru added. "Ask the Terrans to take up positions in the entrance chamber and watch the square against a rescue attempt."

"Who would rescue Loyu?" demanded Rawm.

"Never mind; I shall have other instructions later."

When two of Rawm's soldiers returned with Komyll, who wore a shimmering robe of silver cloth, her greeting was a shock to Myru.

"You barbarian!" she spat. "Do you actually think to hold the Keviu's throne? Loyu e Huj has powerful allies, whose armies will march tomorrow!"

"Hoh!" said Myru. "Let them; the worse for them! You need pretend no more; I, too, have friends—from the Terran ship!"

Komyll ignored his gesture to approach the throne. "You filthy, mutilated thief!" she raged. "What should I pretend? That I did not like being the Keviu's favorite? Get back to the ditches where you belong! You will be hunted out of them soon enough!"

Myru stared at her, feeling as if he had caught a spear-butt in the thick of the belly. It was such a moment as when he had seen the Terran ship land—the unbelievable lingering before one's eyes to prove that it was real.

It seemed that the hall had been

quiet a long time before he found his voice. A foot scraped the floor as someone fidgeted. "Perhaps not very soon," he croaked at last. "Not soon enough for you to enjoy, I regret. Guards!"

Two of Rawm's soldiers stepped forward.

"See that there is a place for her with Loyu e Huj; a Keviu should not pass unattended. But... tell the knife-men to do it without pain..."

He continued to sit there, feeling cold and empty. After a while, he noticed that the guards come back, alone. Still later, he roused himself to give Rawm further orders, which were followed by a distant commotion and banging to Terran weapons.

**T**HHEREAFTER, Rawm stood before the throne, receiving reports for Myru, giving orders in a quiet voice, or sending this or that one on errands. He kept a side eye anxiously on his cousin.

"Rawm!" said the new ruler at last.

The soldier hurried over.

"Now, the Terrans!"

"Yes, Myru Keviu."

"To you, 'Myru,'" said the latter. "I remember who fed me when it was unwise, and who fought for me today. I do not forget; though I may remember too long. Now, the Terrans!"



He thought he knew their features well enough to judge that they were angry at being led in with their arms bound and under guard. The soldiers reported that they had been forced to kill one of the ten. The aliens, reacting viciously at being taken by surprise, had killed two soldiers and a thief with their small guns, before being swarmed under.

"What are you doing?" demanded Kean, quite red in the face.

"I have nothing against you," said Myru, "but I am learning that one in my position may leave no small fire unattended, lest it burn down his pal-

ace. Do you want anything before you die?"

Kean gaped. Some of the others growled words Myru did not know, but he thought it best not to show ignorance.

"For me to let you go back to your ship and leave would be very foolish," he said.

"But we had an agreement!" sputtered Kean. "You were to help us if we helped you!"

"Partly. I would be your slave-master when you send your people to make a...colony."

"Okay!" snarled Richter. "Maybe that *was* in the backs of our minds; shall we tell your people you were willing?"

"Hoh!" said Myru. "Which you will tell, in *your* language?"

That silenced them, till Kean rallied with a new thought.

"You have won this trick," he admitted, "but you will be more foolish to lose the advantage. We have much to teach you."

**M**YRU LEANED back and stared at him. "You are telling me again that knowledge is power?"

"Obviously!" said Kean. "Look at what it did for you today!"

"Today proves only that I had one kind of knowledge and you another; perhaps *mine* made power."

Kean looked angry and disbelieving.

"Your weapons helped," said Myru, "but better was your advice which you often gave me—to observe and learn against the time when knowledge would be useful. I observed *you*!"

The Terrans were all silent again, and he saw that they did not like him to say such things. They were star-travellers, accustomed to gather, not yield, knowledge.

"I told you of the *knugh* in the hills, but there is no animal called '*knugh*.' See my people! Do they know the word?"

Kean did not look at the Vunorians in the throne chamber, but watched Myru intently, waiting.

"Then I told you about Vunorians becoming little animals, but they do not believe so. I showed you the temple, but it was just an old ruin with stolen statues."

"So it was all a trick!" snorted Kean disgustedly. "Well, you should hardly sneer if the knowledge you gave us was false!"

"Did *you* tell me all truth?" asked Myru, beckoning to the guards. "You know so much, you forget simple ways of thought. I think maybe you have gone to planets having animals stranger than my *kuugh*. You maybe saw many worlds with strange temples and many peoples with strange beliefs, so that nothing is new to you. Even, maybe, you found among the stars those who would sell their own kind to do what you say."

He could not read the expression on the faces of the Terrans, but he hoped it was shame. That would

make it easier for Myru to do what he had to do.

"You have seen that any thing is possible," he finished, "so—you believed *anything* I told you. You can do all things except see simple truth in open daylight. Do you call that knowledge power?"

They flung hard, defiant looks at him as the guards led them away, but there was nothing they could do. Myru was sad for them—for they were great in their way—until he stepped out on an upper balcony later, for air. Then he saw the stars beginning to glitter in the moonless dusk of Vunor's sky, and he forced down the pity that might weaken him.

"So they would make Vunor their 'colony'!" he murmured, staring upward into the heavens. "Not while Myru e Chib lives! We will be ready for the next ones!"



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**SCIENCE FICTION  
QUARTERLY**



## Readin' and Writhin'

SCIENCE-FICTION "juveniles" are not a new thing in themselves. There have been numerous such books in the past, and I am told that those written by Robert A. Heinlein are particularly good. However, with the new "Adventures in Science Fiction" series issued by the John C. Winston company, we have something fresh and commendable: a carefully-thought-out and well-organized approach to the market for potential science-fiction readers between the ages of 12 and 16. This is not a series of novels by one author, or centering around one character; it's a continuing selection of well-written science-fiction adventures by some of the best authors in the field, as well as newcomers.

I've just begun to look into the subject recently, and cannot pose as any kind of authority on "juveniles", but I have discovered a number of things—some of which surprised me.

Producing the "juvenile" presents special problems to both publisher and author, for such books are neither written for, nor sold directly to, the ultimate consumer. Generally speaking, the person who buys these books isn't the consumer himself, but someone who buys it for him—parent, relative, friend, teacher, etc. So while the finished product has to please the reader—as with any other kind of book—the publisher has to satisfy someone else, first; he has to offer a book which will strike "adults" as being "suitable for teen-agers". This involves not only what the teen-ager wants and likes, but what his elders think he ought to have, and ought not have. Many a book which might go over well with the "juvenile reader" wouldn't pass this preliminary screening; it would break against the various walls of prejudice and pet ideas that adults—particularly educators, librarians, and other "experts"—

have about what "young people" can understand; what they like; and what they should be protected against.

Whether this situation can be considered "good", or "desirable", to what degree any writer, editor, or publisher of juveniles "likes" it, is all irrelevant when you're up against the facts. If you want to write juveniles which will sell to any publisher, you have to observe certain rules—because unless these rules are observed, the publisher isn't going to be in business very long.

In the broader sense, you have the same general condition in any aspect of writing and publishing for large-scale circulation. Authors who want to sell stories to *Dynamic Science Fiction* are writing for a large audience of science-fiction readers, but they have to please me first; so long as my judgement of what the "readers like" is reasonably sound, this magazine will probably be successful. It's the same with any other magazine of this nature.

The difference, then, between writing for a science-fiction magazine, and writing a "juvenile" is one of degree. Basically, the first requirement is a well-plotted, well-written story which seizes and maintains reader interest. The conscientious producer, anywhere along the line, aims as high as possible within the limitations of the market.

And Winston is going on the assumption that they are going to sell their books to a discriminating audience. Just because it's "kid" stuff doesn't mean that any kind of simple-minded trivia goes. They want sound science, good characterization, and sound motivation in addition to a well-plotted story.

But let's consider some of the particular requirements, certain limitations which would not apply, say, to writing for *Dynamic Science Fiction*.

First of all, there's the matter of vocabulary. Generally speaking, most teenagers are not going to have as large a vocabulary as the general science-fiction reader. It's not so much the length of words as to whether they are in the general range of the age-group's common use and understanding. (The Winston company also publishes a fine dictionary, but the object of this series of novels isn't that of increasing dictionary sales. Some readers, in any age group, may be fascinated by reading a story with a dictionary close by; but for the most part, any reader is likely to lose interest if there are too many words and phrases that stop him cold.)

And, remember, we have to consider not only the actual vocabulary-limitations of this age-group, but *adult's ideas* of the limitation. In many instances, no doubt, the small fry will know words and phrases that pop doesn't; but pappy's the one who lays out the dough and you won't sell him on the line that junior's much brighter than he is. (The same goes for teachers, librarians, and sundry experts.) The problem is complicated by the fact that we're dealing in a form of fiction which will be new and different to many of the grown-ups, too. Junior may have been watching "Space Cadet", and may have gotten up quite a sizeable hunk of science-fiction patois, but the others haven't; if they don't understand it, they'll assume that it's over the kids' heads.

The writing, therefore should be straightforward, simple, and to the point, without the kind of involved sentence structure that you'll see in almost any editorial in this magazine.

Does straightforward and simple mean simple-minded writing? Certainly not! One of the most common faults in a great deal of magazine science-fiction is needlessly-involved sentence-structure and a wallow of ten-cylinder words. I've been a frequent offender myself, and a large number of the "big name" writers are also guilty. (In this respect, Dr. David H. Keller and

Ray Bradbury have much to teach those who are willing to learn.) A "new" reader is very likely to be deluged with words and phrases that mean nothing to him; in far too many instances, these are not explained—either in the manner of usage, or any other way. At best, it can be discouraging to the intelligent person who decides to try science-fiction; at worst it can add up to very sloppy writing and thinking on the author's part.

It isn't a case of avoiding all long words, but choosing lucid, expressive phrases, and taking care that what may be obscure explains itself by the manner in which it is used. There's a difference between the kind of writing which makes the reader think, and writing which interrupts the story, so that the reader has to solve the puzzle of what the author is talking about, and what is going on.

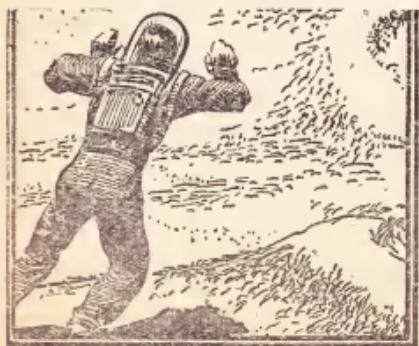
Soundness of character and motivation in the juvenile means simply believable people acting from motives with which the reader is familiar. What must be avoided here is obscure psychological explorations, which one often finds in general science-fiction. Exposition and philosophy also have to be kept under control; the former should come within the action and movement of the story—rather than laid out in little blocks of lectures here and there—and the latter should be brief, forceful, and relevant to what is going on, or about to happen.

Actually, the difference between the requirements for a good "juvenile" and an ordinary science-fiction novel, is again one of degree.

Second, we have to consider taboos for this market. Here you'll find limitations that wouldn't apply, necessarily, for ordinary science-fiction. Sex is out; so is alcohol and profanity. There are other taboos, too, no doubt, but I'm sure of these three.

At first glance, it may look as if you couldn't expect to find anything worth your while under the limitations of the "juvenile"; but a little careful thought should persuade you otherwise. There is no reason why first-class stories cannot be written within this framework. Just about every limitation and taboo present here has applied to other science-fiction markets, at times, and some still apply to some markets.

Five novels have appeared in the Winston series: "Marooned on Mars", by Lester del Rey; "Son of the Stars" by Raymond J. Jones; "Five Against Venus," by Philip Latham; "Earthbound", by Milton Lesser, and "Find the Feathered Serpent", by Evan Hunter. Several more novels will have been issued by the time you read this. I haven't had a chance to read them all, but I'll try to report upon the titles mentioned above in the January *Future Science Fiction*, and will get to the new titles as soon as I can thereafter.



**D**UE TO publisher's oversight, James Blish's novel, "Jack of Eagles" (Greenberg \$2.75) is not identified in all copies as an expansion of his "Let the Finder Beware", which appeared in *Thrilling Wonder Stories*. This is particularly unfortunate, because such information would explain quite a bit which might be puzzling to some who are familiar with the author's other work, much of which is very fine. (I am told that the error is being corrected, and that the notice does appear in copies presently available.)

It raises the question of whether the practice of expanding a magazine novelet, or novella, into a regular length book, is a good idea. We've seen a number of examples of a magazine novel being revised, and/or slightly enlarged for book publication. "The Humanoids", by Jack Williamson was a revision of "And Searching Mind"—with material from the novelet "With Folded Hands" added. "Seetee Shock", also by Williamson; "Lest Darkness Fall" by de Camp were enlarged for hard-cover editions. However, "Jack of Eagles", unless I am mistaken, is almost double the length of the magazine version.

The first consideration is whether the theme and story can take the extra length. In this case, there's no doubt that it could. "Let the Finder Beware" suffered, to my taste, from the length-restriction. I expected that "Jack of Eagles" would be better.

Well, it is. Unfortunately, such a process, while adding to the novel's strength also emphasizes its faults, for the deficiencies were already built into the story-structure. "Let the Finder Beware" was written to a "formula" order, and the formula is underlined doubly in the book.

And the irritating thing about it is that

Blish has here one of the most fascinating themes ever tackled in science-fiction, with a "science" treatment that puts it light-years ahead of anyone else's attempts along the same lines. As extrapolation on the subject of "wild talents" and the physical, scientific basis (and theory) behind psychic phenomena, "Jack of Eagles" is the science fiction novel of 1952. No matter how much the threadbare plot may discourage you, you won't be able to put it down once you start it.

As a story, it is pretty much a caricature of the author's positive talent for presenting interesting and believable characters; there just aren't any in the book. Danny Caiden, the lead, comes closest; the opening chapters are quite well done, but once the structure of plot and science start to build, Danny loses profile. The others aren't much more than stock shadows to begin with.

Actually, I suppose it isn't as corny as I've made it sound. The story moves along and there's plenty of excitement; action is neatly handled so that it doesn't appear as just slam-bang for its own sake. Had I never read anything else by Blish, I might not be aware that this was an inferior production for him. (One difficulty is that there's enough material here for a dozen novels, and the marvellous events are stacked up to the point where nothing, so far as story goes, has any shock value whatsoever. Long before you get to the final climax, you've been numbed by being socked on the head continually all the way through.)

So I'm in the ambivalent position of having to report to you that this is a mediocre story, but a book that you positively should not miss!



### We'll Go By Your Wishes

"Readin' and Writhin'" also appears in our companion magazines, FUTURE SCIENCE FICTION, and SCIENCE FICTION QUARTERLY, and it has been our policy to try to discuss books sent to us for review, rather than to rush through capsule comments, and indiscriminate praise for everything that isn't outright trash.

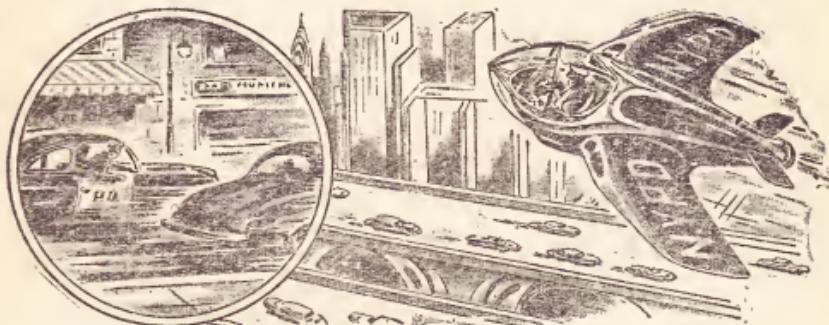
Do you favor this policy? One argument against it is that the books discussed most likely will not be new releases; very frankly, I cannot keep up with everything that comes out and discuss it as soon as it is on sale. My own feeling has been that most of the other magazines feature timely remarks on science-fiction books, but few discuss them to any degree.

But this isn't my own personal organ, designed to suit my taste alone. So let's hear your opinions, and I'll abide with the majority prefers. RWL

# PUBLIC ENEMY

By Kendell Foster Crossen

At long last, Public Police Officer Brad Raynor was going to see some action — perhaps he'd have some of the excitement that policemen in the past experienced every day!



Brad pictured the old days, when cops had a rough but exciting life...

**B**RAD RAYNOR cruised in the one thousand level above Nyork and tried to suppress his boredom. Because of his training he was aware that dull routine was preferable, but emotionally he yearned for a little action.

This was Public Police Officer Brad Raynor's fifth day in uniform. It had taken him seven years to achieve that uniform; four years at Harvard and three years at the University of Public Protection. His three degrees—one in psychology, one in sociology, one in criminalistics—were announced to the world by the neat blue uniform and the badge, Number 42,151, he wore.

"Car three thirty-seven," said the voice over the audio-speaker. Brad

Raynor tensed at the first sound of the voice, then relaxed as he heard the number. "Proceed to street level at two eighty-four West Seventieth Street. Signal eighty-three."

Signal eighty-three meant a minor domestic adjustment problem. Brad Raynor idly watched the swerving speck of light on the patrol screen, which indicated the path of Car 337, and sighed.

Secretly, he was amused at himself. No one was prouder than Brad Raynor of the progress made by the middle of the 32nd Century, while all of his training had been directed toward increasing that progress. Still, only five days after becoming a part of the Public Police Administration, he found himself longing for the "good old days" he'd read about when the cops went after a fugitive with blazing guns.

Not that he was unarmed. The police cruiser was equipped with

everything from a lightweight atomic cannon to a tiny nerve-gun which could be concealed between two fingers. Nevertheless, it was a fact that there was seldom any need for the weapons and Brad Raynor was young enough to indulge occasionally in romantic fantasy. In reality, he knew there was nothing romantic about the "good old days." A complete history of police work was, of course, a required subject at the university and he was well aware that in the old days most of the police had been incompetent, generally brutal, and for the most part held in contempt by the Public. A favorite subject during some of the bull sessions had been the old question of whether the actions of the police produced the public attitude or whether the attitude formed the police mentality. All of that, of course, had been changed by the 21st Century. Since then all policemen had to be adequately trained and the national, state, and city officials over them were elected by the voters.

"Car two ninety-one," droned the voice from the audio-speaker. "A speeding air-car is headed up toward your sector. Intercept and investigate the cause."

Brad Raynor glanced at the chronograph on his instrument panel and saw that it was eighteen hundred. He leaned back, lifted the panel behind his seat and removed the record film for the past hour. He inserted it in the projector and quickly ran it off. The film showed all the details of the streets and houses over which he had passed during the previous hour. He spotted nothing unusual and the film was put away to be handed in when his patrol was over.

"Routine," he muttered to himself. He grinned and reached for the audio-phone. "Car three hundred, on course, at eighteen hundred plus," he reported. He swung the phone back into place and idly watched the pips of light on the patrol screen.

"Car three twenty. Proceed to

street level at one twenty-six East Fifty-third Street and arrest citizen Jon Bair. There'll be a complete report on your tape by the time you get there in the event you need it. Bair has been under voluntary treatment at Therapy Control because of having trouble with his neighbor, but he has just destroyed some property belonging to this neighbor. Arraign him on the charge of destroying private property, then deliver him to Therapy Control. Watch your screen for a photograph of Bair."

*And that's the way it goes,* thought Brad Raynor. Even though he knew it was almost impossible, he found himself wishing that someone would rob a bank—in his sector, naturally. It would be nice to have a citation on his blue uniform when he got married, an event which was but two weeks away.

"Car three hundred," the voice said sharply. That was his number, but it was the tone that caused Brad Raynor to straighten up. "Citizen Will Howard broke into the home of Jan Laird, Mayor Of Nyork, ten minutes ago. He stole two hundred world credits, in cash, and a small-bore energy gun. Upon leaving the premises, he encountered Public Officer Arthur Sommers and killed him without warning." The voice paused briefly, then continued. "The fugitive escaped in an air-car belonging to the city. He is now in your sector, at the three thousand level—Horizontal sixty-two, approaching Vertical ninety-one."

THE VOICE droned on, giving a description of the fugitive which included his brain-wave pattern and a chemical analysis, but Brad Raynor was already in action. He still heard the voice and was memorizing the description, but with his left hand he touched the controls so that the cruiser tilted up and leaped ahead. With his right hand, he swung the radarscope. A minute later, he was picking up the echo of the returning

signal. He triggered the cybernetic control and glanced at the tape. The fugitive was traveling at eight hundred miles per hour and still accelerating.

Although this was his first case, Brad Raynor had been so well trained that all of this was already second nature to him. Even as he glanced at the tape-reading, he was punching the fugitive's brain-wave pattern into the encephaloscope and swinging it onto the fix held by the radarscope. A rhythmic pinging came from the tiny receiver and he knew that he was following the right man.

"Watch your screen for the film record of the fugitive's escape," said the voice from the audio-speaker.

Brad Raynor glanced up at the video-screen and a moment later saw a full color shot of a big, furtive-looking man hurrying into an air-car. It was enough for a sight identification, despite the briefness. Brad knew that it had been caught by the side-camera of one of the street-level patrol cars and he felt a surge of pride at the speed with which headquarters had located it, taken a videotape print and beamed it to him.

"Warning," said the headquarter's voice. "The fugitive is armed and is obviously in an unstable condition."

Brad Raynor grinned up at the audio-speaker. This was turning into just the sort of assignment he'd been thinking about.

"Car three hundred," the voice said sharply—and it was almost as if the Assignment Officer were reading his mind, although actually he was merely remembering when he too had been a probation patrolman—"under any circumstances, bring this man in alive."

That was all, but Brad Raynor knew the Assignment Officer was reminding him of Rule 127 in the Handbook of Public Police Procedure. Like the other rules, it was indelibly fixed in his mind. "Public Officers must at all times remember that the criminal is merely a person at odds

with his society. The Public Police Administration was not formed to preside at the execution of citizens. Except in those instances where a large segment of the population is endangered, the Officer *must always* deliver his prisoner alive. Insofar as it's possible, the criminal must make amends for the results of his crime, and this might be called punishment, but the chief duty of the police is to see that he is brought in for therapy. A criminal cured is a citizen saved."

Brad Raynor watched the air-speed needle move past the twelve hundred mark and knew he was gaining on his quarry. He glanced at his other instruments and was surprised to see that he was already up to fifteen thousand feet. Since the cruiser was built to adjust its oxygen supply and pressure automatically, height was no problem. It might, however, cause another problem. Frowning, Brad leaned over and triggered the cybernetic control. The tape revealed that the other ship was at twenty-five thousand.

He pulled the audio-phone to him. "Car three hundred," he reported, "at fifteen thousand feet, gaining. The fugitive is now at twenty-five thousand feet, obviously heading out."

"Try to intercept him before he reaches the limits of Earth's atmosphere," the Assignment Officer said over the speaker. "If this is not possible, then your orders are to arrest him whenever possible. We will arrange clearance with the Space Patrol and with any planetary government when needed. Use your own judgement in the matter of time and place."

Being a normal young man who had never traveled farther than the moon, there was a minute when Brad Raynor thought of letting the fugitive escape from Earth and then catching up with him on, perhaps, Mars. But it lasted no more than a minute, for he took very seriously the responsibility which went with the neat blue uniform. He reached over and shoved

the power full on. The cruiser surged forward.

The police cruiser was within a thousand feet of the fleeing air-car by the time they were twenty miles above the surface of the earth. Brad Raynor switched on his sighting screen, turned the nose-cannon over to *Manual* and fired a shot which would explode well ahead of the other ship. He pulled over the audio-phone and thumbed the button on its side.

"Public Officer Brad Raynor calling Nyork city car, registration 12Z," he said. He knew the occupant of the car would hear him whether his receiver was on or not. Every air-car built contained a panel which would automatically pickup police calls sent out on a tight beam limited to police work. "City car 12Z, pull up and surrender."

FOR A MOMENT, the air-car continued at the same speed. Then it began to slow up, finally becoming stationary at an altitude of twenty-five miles. The police cruiser approached cautiously, Brad holding himself in readiness to send it flashing away if the other ship tried to ram him. When the two craft were a mere hundred feet apart, he stopped the cruiser and stabilized it. He was sure that city air-cars were not normally armed and the appearance of the ship in the forward viewing screen revealed nothing that looked like armament. With that, Brad Raynor leaned over and pressed a button on the control panel projecting a tractor beam.

But even as the beam reached for the other ship, it moved. Straight down it flashed, the backwash of power rocking the police cruiser. The tractor beam gyrated in empty space and dissipated itself. Brad switched off the beam, savagely jammed the power on and brought the cruiser around in a whirling dive. But even so the ruse had given the other a start. As the radarscope lined up on the fleeing ship, it was already thirty miles away and accelerating madly. Brad shot the cruiser in pursuit.

It was a wild race earthward. But the fugitive's craft had gained just enough of a lead by the maneuver to stay in front, and it pulled out of the dive only a few hundred feet above the ground. So quickly did the dive end, there was a moment when Brad thought his stomach wouldn't make it.

They had come down over a small town which Brad recognized as one of the suburbs lying north of Nyork. The ship ahead of him darted down to within a few feet of the street and began zooming among the buildings. Brad Raynor followed. As he did so, he thrust his left foot down on a button on the floor and held it there. The grilles nose of the cruiser began broadcasting supersonic waves, out and around the ship ahead, to be picked up by an oncoming craft so that they could get out of the way. At the same time, he flipped another switch which automatically sent out a police identification signal which would be picked up by any other police car in the neighborhood.

Once more the police cruiser slowly gained on the car ahead. Brad was strained forward in his seat, squeezing every bit of speed out of the cruiser that was possible as they zigzagged around buildings. He watched as the nose of the cruiser reached the tail of the other car, then crept up along the side. He was holding a slight elevation advantage of the other and now he began nosing it to the side and down. It was a delicate operation, with both ships traveling at well over a hundred miles per hour, where one slip might crash both of them.

Then, suddenly, the fleeing car heeled over and flashed into a narrow alley. Brad saw it scrape the side of the building as he flashed by and he winced. Crushing, he threw the cruiser up in a tight top loop, cutting speed at the same time. Even so, he lost several minutes getting back to the alley.

THE CITY air-car was parked inside the alley, on the ground.

There was a long dent on one side where it had scraped the wall, but otherwise it seemed undamaged. Brad grounded his cruiser behind it. He swung the encephalscope on the ship, but there was no answering *peep*. It meant that the fugitive had already left the car.

He opened the emergency panel in the cruiser and took out a smaller, portable encephalscope. He hesitated, then took from the rack over his head the tiny nerve-gun. A moment later, he stepped out into the alley. He slowly swung the encephalscope around until it emitted a slight sound. It was pointed toward the solid wall rising beside him.

Brad walked out of the alley and to the front of the building. It was a large apartment house and the faint *peep* from the encephalscope told him that the fugitive was somewhere inside.

The front door was locked and there were a number of push-buttons along the wall, each one with a tiny two-way video-screen above it. But Brad went directly to the door. He pulled an electronic pick from his pocket and bent over the lock. The door swung open.

Inside, Brad paced along the hall, swinging the encephalscope from door to door. He did the same thing on the second and then on the third floor. It was on the third floor that he finally pointed the instrument to a door and was rewarded with a strong, steady chatter from it.

Again, he used the electronic pick. Then, holding the nerve-gun concealed in his hand, he kicked the door open.

Directly inside, energy gun gripped in shaking hand, stood the large man who had been pictured in the film strip flashed on Brad's screen. For what seemed like several long minutes the two men stared at each other, while the encephalscope fairly purred.

"Drop it," Brad said finally. "It'll do you no good to fight. Even if you get the best of me, you can't escape. There'll be a thousand en-

cephalscopes searching you out the minute my next report fails to come in. So, drop it."

There was another wait, while the hand that held the energy gun trembled more violently. Then, slowly, reluctantly, the fingers spread and the gun dropped to the floor.

"Damn you to hell," the man said bitterly. "Damn all science!"

"You're wrong," Brad said, leaning over to pick up the gun. "Now you feel that you wouldn't have been caught if it hadn't been for science—but the truth is that if it weren't for science you would have been killed while trying to escape. Come along."

He followed the prisoner from the building.



TWENTY-FOUR hours later Brad Raynor landed his cruiser in the space on the roof of the Justice Building in the 22nd Sector of Nyork. Herding his prisoner ahead of him, he entered an elevator and they were carried down to the hearing rooms.

The Public Justice Administrator looked up as they entered. Then he glanced back for a moment at his desk.

"You must be Public Officer Raynor," he said with a smile. "I see that your assignment is the only thing open in this Sector."

"Yes sir," Brad said, saluting. "This is my prisoner."

"Will you charge him, Officer Raynor?"

"Yes, sir. As an officer of the Public Police Administration, I charge this man—Jan Laird, Mayor of Nyork—with the crime of negligence in his responsibility to the people of this city. A citizen, one Will Howard, was permitted to go unemployed. As a result of the unemployment, Will Howard committed robbery and in leaving the premises shot and killed a public officer."

"How do you plead, Mayor Laird?" the Administrator asked.

There was a moment of silence. Then, "Guilty," the mayor said huskily.

The Administrator glanced at the papers on his desk. "Your crime, Mayor Laird," he said, "is doubly serious because of the high position to which you were elected by the people. We have already discovered a number of other citizens who have become slightly unstable because of feeling that they are in a hostile environment. Fortunately, Will Howard was the only one who had reached the point of direct action. I have a report from Therapy Control stating that he will need five or six months of therapy before once again being a smoothly-functioning individual.

"I notice, Mayor Laird, that you have done well in private enterprise and possess considerable surplus wealth. Therefore, it is the judgement

of this Administration that you be appointed the guardian of the wife and children of the slain Public Officer Arthur Sommers, responsible for their economic security. This responsibility will continue for the life of the widow and will include the children until they have finished university training. You are also removed as mayor of this city. This is the extent of this Administration's concern with you. You will now be turned over to Therapy Control for proper treatment."

With bowed head, the former mayor turned away.

"Good work, Officer Raynor," the Administrator called after them. Brad Raynor followed the prisoner out, feeling every inch a cop and no longer wishing for the "good old days."



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### TESTAMENT OF ANDROS

by James Blish

*Don't miss the January 1953*

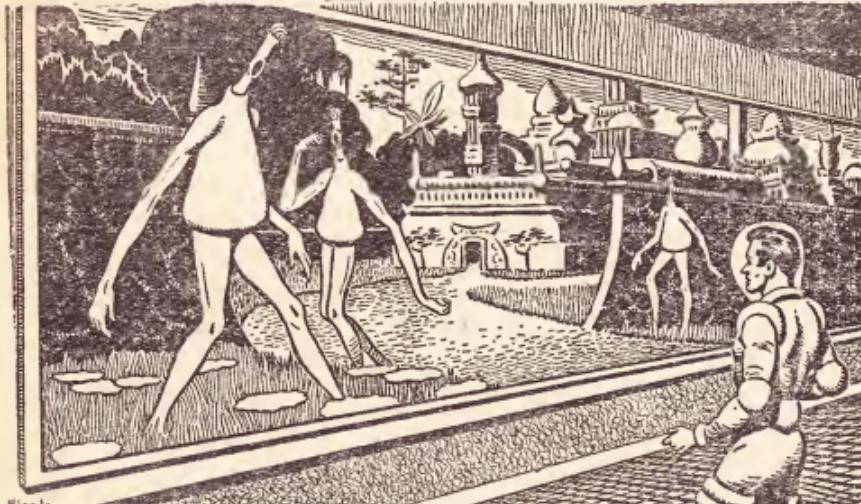


# FUTURE SCIENCE FICTION

# Translator's Error

By Charles Dye

It was a perfectly natural mistake  
for men to make . . .



The mural extended the full length of the hall, depicting scenes of the old Martian civilization . . .

**R**ICHARD POTTERBOY was a beefy man with a big red face like an old-time politician's; he looked like an elephant beside the little man with the telescopic spectacles sitting next to him. They both arose as Grisby walked in.

Potterboy's face grew a shade redder as he glanced menacingly at his watch. "Good Lord, Grisby, where do you think you're at? Vacationing back on earth? We've been waiting here nearly an hour for you!" He wiped his mouth with the back of his hand. His uppers didn't fit well and he was inclined to sputter.

Before Grisby could reply, Potterboy was introducing him to the little man with the powerful glasses. "Philip Grisby, Mr. Theodore McGinnis, newly-appointed historian of the Martian Rehabilitation Project."

Grisby gravely shook McGinnis' limp hand, still saying nothing.

"Well, shall we go to your office?" Potterboy suggested impatiently. "You might also have coffee sent in. This was McGinnis' first trip into space; and after two weeks, I'm sure he'll enjoy drinking out of a plain, old-fashioned cup again!" The Administrator, slapping McGinnis on the back, chuckled at his own hearty humor.

"Coffee, Halstead," Grisby shouted as they walked from reception into office.

Potterboy lighted a huge cigar, while they all sat around in strained silence until the secretary entered and left the coffee.

"Now," Potterboy said, puffing furiously on his cigar—but he didn't finish. For the first time, he noticed how ill and dejected Grisby looked.

In spite of being a back-slapping extrovert, he was completely disconcerted. After years of setbacks, things had seemed to be going so well the last time he was here.

Grisby, who was known as an optimist, moistened his lips and ran a shaky hand through his thinning hair. "For a historian, Mr. McGinnis, you have come at a most historic moment. The Martian Project has just failed!"

Except for McGinnis taking notes, there was dead silence. Potterboy felt suddenly ill. His cigar tasted like old rope. He wondered what he was going to tell the government in order to justify the billions sunk into this, as well as other planetary rehabilitation projects. To build the solar-system into one of the finest in the galaxy, had originally been his idea; and, for any failures, he would certainly be to blame.

"Let's have the details," Potterboy said in a weak voice.

"There's nothing much to tell," said Grisby, smiling wanly. "Just before you landed, both polar furnaces melted through the ice and sank into God knows where."

Potterboy looked aghast. "But how? I thought they were designed to float, once the polar caps began to melt?"

"So did I, but they didn't. I can't offer any explanation. They just didn't!"

For the first time, McGinnis opened his mouth and said in a dry voice, "I take it, then, that this was the last try to get water into the canals?"

"The last try," Grisby and Potterboy both said, staring down into their cups of coffee.

**F**OR AWHILE, no one said anything. Then, Grisby, more to himself than to the others, "If only something could have been done about those damned Blotting Pads! They, alone, have apparently ruined Mars; and caused the only intelligent life-form to atrophy into the cone-shaped

things you see occasionally writhing in the sand."

McGinnis cleared his throat. "Is it true that no one has been able to capture and analyze a Blotting Pad?"

"They've been captured, but the minute they are, they crumble to dust; and any liquid or moisture absorbed, remains in the form of a gooey tar—of which you see traces all over the planet.

"The only way to keep liquids is to store them in containers lined with deuterium—heavy hydrogen, that being the one material through which they cannot absorb. Of course, at more than ten feet distance, they can't absorb through anything. When we first arrived, every one thought they would have to walk around in deuterium lined armour; but, for some peculiar reason nobody has been able to figure out, they won't absorb from men. The Blotting Pads, which resemble lichens only in the vaguest way, average two feet in diameter and can absorb up to a gallon of water, which, almost instantly, is excreted in the form of tar. That's all that's known about them. If you look out the window, McGinnis, you'll see them floating and crawling all over the sand."

McGinnis crossed over to the window and stood watching the green, rubbery disks lying on the sand and hovering a few feet in the thin morning air. He and Potterboy had arrived before dawn and this was his first glimpse of them. "There must be millions of them," he said.

"Yes. How they breed we don't know. To electrocute them is the only way to kill them. Radiation, poison, or shooting won't work; and we can't run around using atomics."

"Oh, well," said Potterboy, breaking a long silence, "if the project to completely melt the polar ice had been successful, in probably no time, the Blotting Pads would have absorbed all the water in the canals, in spite of the electrocution angle."

Grisby sighed bitterly. "No, it would have worked. The Pads can't absorb while floating, and the moment they came to rest within the ten foot area bordering either side of the canals, the high tension cables would have done the rest!"

McGinnis was peering far to his left. "I take it those are the generating plants?"

"They were the generators—I gave orders this morning to start dismantling operations."

"As I understand it," McGinnis said, "the cables and plants are bordering only two of the canals?"

"Yes, all subsidiary branches were blocked off from the two main arteries. Once the arteries became filled, and the Pads—we hoped—electrocuted, the other branches would have been opened; including the minor ones connecting directly with the polar caps."

"What do you say to taking McGinnis over to the ruins?" Potterboy asked. "Since I'm leaving tonight, and probably never visiting Mars again, I would like to gaze, cynically, on the business that started this whole damned white elephant project rolling!"

"Since you're going to be here for a year or two, McGinnis," Grisby said, "you can wait and go out later, when you have more chronological data concerning the project?"

"No, I might as well go out now. I'm feeling rather restless and depressed—I always do, at the end of some big dream like the Martian Project."

THE ADMINISTRATION buildings towered like mountains against the flat, two-dimensional sandiness of Syritis Major. The three men in sun goggles and chemically cooled clothing looked like insects as they trudged across the reddish, iron-oxide nightmare. Heat waves rolled up into the pale sky like breakers from some gigantic ocean. Blottings Pads, resembling shiny, green fish, darted swiftly

as they moved out of the pathway of the men.

"We could have taken a jet out," Grisby was saying, "but I wanted McGinnis to see the desert, Cones, and Pads first hand. Incidentally, there's approximately one Pad to every twenty square feet of Mars. They slowly, but constantly, rotate counter-clockwise around the planet. That way, they all get a crack at what little water forms around the polar cap edges."

In spite of the intense heat, Potterboy had another cigar going, on which he would puff heavily before speaking. "Sabotage, of one sort or another, seems to be the only answer to these polar furnaces. The first two explode, and the second two sink! I can't help feeling that someone doesn't want Mars resurrected from its sandy grave."

"Yes," Grisby said, with a sarcastic laugh, "the Blotting Pads don't! But, then, I doubt if they know that they don't. They're completely unintelligent—just a couple of instincts in a rubbery bag, absorbing water and transmuting it into tar. And, as you know, Potterboy, all men and technicians were given a six month psycho before being allowed to work on the project; then carefully watched for any sign of dangerous neuroses."

For awhile, they walked along listening to the crunch of their feet on the sand, saying nothing. The ruins loomed steadily larger through the rippling heat waves.

Finally, Grisby said, "There is one puzzling thing—not a single man in the eighteen years we've been here, has lost his life or met with an accident."

"How do you account for that?" McGinnis asked.

"I don't. Nor can anyone else. Our equipment seems to have been the only thing meeting with disasters."

"Well," interrupted Potterboy, thinking of what he was going to

have to say back on earth, "we'll just have to put it down to not understanding the alien laws of chance, or the undetected forces working on Mars—if there are any? But, outside of the ruins, the sand, and the ice caps, the only two remaining things are the Pads and the Cones. The Pads run around absorbing water, and the Cones bake in the sand, occasionally sending up head-splitting telepathic squawks that no linguist can decipher or begin to comprehend. Establishing communication has proved impossible, in spite of their telepathic powers. And the only motion they appear capable of is sluggishly burrowing up and down in the sand."

"Yes, gentlemen," Grisby said, gravely, "we've failed in resurrecting the one seemingly-intelligent life-form on Mars."

"How do you know they're any more intelligent than the Pads?" questioned McGinnis.

"Oh, well," said Potterboy, "the ruins show, as you shall presently see, that they've developed telepathy. And they have tried communicating with us."

"Also," Grisby added, "when the first party landed to establish a base, and started bringing water from the ships, the Cones set up shrill mental vibrations, attempting to warn us before the Blotting Pads could come within range and start absorbing."

As they came within a hundred yards of the ruins, McGinnis halted. "Are these the ruins? Just two metal walls?"

"The only bit of Martian culture left on the whole planet," Potterboy said, lighting another cigar. How he stood them in the heat, was beyond both Grisby and McGinnis. But, then, the government official was eccentric in many ways.

IN ANOTHER five minutes, McGinnis was touching the strange, glassy surface of one of the walls; both of which, ran parallel to one

another and towered twenty-five feet into the air.

Grisby, noticing, said, "Another indication of how advanced the Martians were. We've tried everything, including atomics, on these walls in order to get a piece for analysis—no luck. We drilled down five thousand feet and couldn't even find the bottom of either wall."

"Step around to the inside here. This is where the chronological line drawings begin, as well as the hieroglyphics, which, I'm told, the archeologists have pretty well deciphered."

"We'll have to skim rather rapidly," Grisby continued, "in order to get back before our helmet and suit chemicals give out."

McGinnis peered myopically at the huge scene pictured on the wall. It showed several large cone-shaped creatures with long legs and arms, similar to those of a human. In place of heads, they had stalks on which a single eye rested, while, underneath, gaped what appeared to be a mouth. The Cones were standing near a wall which was in front of a city of fantastically complex architecture—yet, breath-takingly beautiful! The surrounding landscape was a jungle of weird, luxuriant foliage; trees and plants alike, towering hundreds of feet into the air—almost as high as the city itself. In, and around the picture's foreground, several Blotting Pads were shown lying on, and hovering over the tall grass. The wall in the drawing had the same picture on it as the actual one McGinnis and the others were staring at. Underneath the scene, were several rows of complex hen-scratchings.

"From the hieroglyphics and picture," Grisby said, "one must conclude that this was the height of Martian culture. Hereafter, as we walk along, you'll notice, not only the physical and cultural characteristics changing, but the sharp delineation of the murals themselves becoming vague and incomprehensible."

They walked down the long ex-

panse of the first wall in silence; McGinnis with his note book, Potterboy, his cigar, and Grisby, his shattered dreams of turning the sandy grave of Mars into the once fertile paradise depicted in the first mural.

EACH SCENE showed an increasing number of Blotting Pads, and a decreasing amount of foliage. Whole gardens were shown withering away; and huge cities being deserted, as the Pads increased, and the greenery and water disappeared. The last scene on the wall showed the fantastically beautiful city of the first mural, crumbling to dust with Blotting Pads resting on the sandy waste they had created around it.

The second wall showed the elongated legs and arms of the Cones, shrivelling and withering. Later, the stalk with eye and mouth vanished. Then the Cones began to shrink until they were only an eighth their original size. The final, comprehensible scene showed the Cones buried in sand with Blotting Pads all around them. Strange dotted and wavering lines—telepathic symbols—connected the apex of each Cone with that of its neighbor. After that, the remaining scenes fell sharply off into incomprehensibility, leaving the later portion of the wall completely blank.

As the three men reached the second wall's end, several Cones came into view, being grouped more closely than the thousands of others scattered willy-nilly over the planet.

McGinnis stopped short. "So these are what they atrophied into from lack of water," he said, sadly. Shifting his gaze, he glared bitterly at the Blotting Pads, covering most of the desert as far as the eye could see.

Potterboy and Grisby followed suit, staring off into the approaching dusk at the one big stumbling block which had prevented them from resurrecting Mars.

•

The humans had left.

All traces of their coming had been obliterated by the sea of restless sand, except one thing—a spherical deuterium water-container; which, during the windy season, would be buffeted about the planet this way and that, the law of averages occasionally causing it to crack into the timeless Martian wall. At such times, the Cones would philosophically contemplate it and the peculiar, yet likable, creatures that had brought it.

One Cone, who was considered a little strange by his brothers because he lacked the philosophic intensity for complete introverted contemplation, one day, broke the telepathic silence; a thing considered still stranger by his brothers, since it was thought very rude to disturb one another, except in times of extreme importance.

*"A shame we could not communicate...strain incurred destroying furnaces...thousands of years to erase..."*

Weakened by many buffetings, the water sphere hit the wall for the last time. With a crack it split in half, splashing gallons of water far up the wall. The nearest Cones shrieked in telepathic unison as the Life-Destroyer splashed nearby! Almost immediately, directed by the urgency of their commands, their organic-robots—the Blotting Pads—were hurling themselves upon the death giving liquid!

The Cones, at the height of their evolutionary ascent, one by one, returned to the contemplation of eternity. Once and for all time, the danger was past.





# ENNUI

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Pure fantasy, of course, but you must admit that it's quite logical, if you grant the basic premise . . .

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By MILTON LESSER

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**Y**OU COULD not blame me for being bitter. I work hard and I work all day; and when I came home that night, my wife was sitting on the sofa. She had been swimming in the lake, and she wore only a skimpy bathing suit which showed to best advantage the ivory fire of her young body.

A man was sitting with her, dressed in a pair of bathing shorts. His arms were around her. Her arms were around him.

I did not know the man.

I only knew that I wished he—wasn't. If he *wasn't*, then I could be happy with my wife. I'd be playing a game, it would be pretense, but I would be happy. *If he wasn't*; an intriguing idea.

Gloria got up, brushing her hair back with her hands. She said, "Don't make a scene, Gerald."

I smiled. "It was you who made the scene."

"Gerald, I didn't know you were coming."

"Oh. Oh, I see. That makes everything fine; you thought it would be all right if you did this behind my back. Strumpet—"

The man stood up. He was bigger than I, taller, wider, stronger. "Don't get nasty," he said.

I wanted to get nasty. "You just shut up and leave this to my wife and me."

He didn't want to shut up. He told me it was his business, too—and I must have raised my hands as if to fight, because he hit me. It was a good solid blow on the side of the head, and I sat down hard. It took a while to focus my eyes, and when I did, he was standing over me, hands on hips, waiting for me to get up.

I did not get up. Now, in earnest, I wished he wasn't. This would be the ideal time to put into practice my theoretical thinking. I slid further back along the floor, and Gloria began to laugh. She told me I looked like seven different varieties of a worm.

I pointed my finger at the man. I said, "You don't exist."

Gloria screamed. "Phil!" she cried. "Phil! Where did he go so fast? He just disappeared..."

2

**I** WAS A theoretical solipsist long before that night in which I became a practical, practising solipsist.

The idea is one with which nearly everyone toys at one time or another. You've done it yourself: you've thought—what if no one else exists, what if no one else really exists, what if I'm the only being in existence with an awareness of that existence? Everyone else, everything else is just a figment of my imagination, a plaything, an unreality created for my amusement. People, places, the car I drive in—everything. History, even history. It never happened. The records were there only for my amusement, like all else, phantom shadows in a phantom world, meaningless except where I would give them meaning.

You couldn't disprove it; if you wanted, it would keep gnawing at you all the time, because it was not a theory you could disprove. Of course everyone else would pretend, would make believe that he existed, too. He had to—it was for your amusement. But he was an automaton, less than an automaton. Your mind gave him a shadow of reality, and you could take it away any time you wanted.

I took it away for the first time that night. I told the man, Phil—who had been making love to my wife—that he did not exist. That particular segment of my imagination had grown odious, and I did not want it any more.

Phil disappeared; he was never heard from again.

Gloria never questioned it. She's a figment of my imagination which is beautiful, but not too bright. Phil had run out when she wasn't looking, she reasoned; the fact that she *had* been looking all the time did not disturb her—she took Phil's abrupt disappearance as a matter of course.

I didn't. It had opened a new world for me. There were many theoretical solipsists in the world, but I was the only practising solipsist. The reason for that was simple. I, alone, had real existence. The world was my plaything.

A week later, I made Tom Nugent disappear. I wanted his job at the brokerage firm, but he was a good man and his job was not one for the taking—unless he did not have it anymore. I told him he did not exist. He did not.

Two weeks later, the boss was convinced that Tom had left town for one reason or another; I got the job.

Soon after that, Gloria began to bore me. Perhaps I had married her because it had been a challenge—there wasn't another woman in the city as beautiful as Gloria, as desirous. If I could keep her in the face of that, I'd have power.

Now the challenge was gone, and the power; if Gloria had another lover, I would make him disappear. I would see him and he would not exist. Just like that. I suddenly did not give a damn about Gloria. As a matter of fact, I might have more fun filling the role of the now non-existing Phil. But Gloria would object: Gloria was that not too-uncommon female who is on the one hand possessive, and on the other, a born maker of cuckolds.

"Gloria," I asked her one night, "do you have any other lovers?"

She shook her head. "Won't you please forget about Phil? It won't happen again."

"I know," I said. "That particular episode won't happen again, because Phil does not exist."

A little sob escaped her throat, before she could stop it. "Oh! Is Phil dead?"

It was the same thing; I told her he was dead.

Even if I were bored with her, I still could admire her acting ability. The tears were brimming in her eyes, but they did not spill. She said she hoped no one would be unhappy.

I was bored. I yawned, and Gloria suggested that we go to bed. In that respect, she had been a well trained little none-entity. She had suggested exactly what I would have wanted—

last night or the night before. Or a year ago. I did not want it now.

"Gloria," I said, "would you like a divorce?"

She blanched. "My gosh, no; what would I want a divorce for?"

"I don't give a damn," I told her. "You see, my dear—I want a divorce."

She got up and walked up and down for a few minutes. I watched the smooth liquid motion of that which, without any challenge, had come to bore me. "I won't give you a divorce," she said; "there are no grounds, anyway."

"There is Phil," I reminded her.

She laughed. "Phil is dead. You said so, Gerald. Your word against mine now—and there are no grounds."

I sighed.

I felt no recriminations. I had given her the way out—if she had wanted to take it. The fact that she did not, was none of my doing; besides, as an unreal being, she did not matter one way or the other.

In the outmoded theories, every existing item has two things. It has essence and quididity. Or, put into more simple terms, it has whatness and thatness. Gloria, along with everyone else, had whatness. She had an essence. But she lacked thatness—she had no quididity.

I told her she did not exist. And as a mere essence creature with nothing of quid—she stopped existing, abruptly and painlessly. One moment Gloria was, the next, she wasn't.

### 3

THIS HAD unfortunate repercussions. It caused the death—I suppose it is the equivalent of death, you take away the quididity and you take away all that is really important—of nearly every pretty girl in the vicinity. You see, I lacked one thing which Phil had—I lacked his charm; so the girls spurned me. When they spurned me, I took their existence away. They had no right to spurn me,

and thus did not merit their quididity.

After a while, I became bored with the whole idea, anyway; what did a woman have to offer but the pleasures of the flesh? And are the pleasures of the flesh alone significant? That was silly, and, with some effort, I could show it to mankind.

I willed woman out of existence. All women. Everything that was human and at the same time female. Don't misunderstand—I did not hate women; I was just bored, and I wanted to show the world there was more to life.

I became aware of my oversight later. With no women there could be no reproduction, and I had, in effect, destroyed the human race. Then, I had to smile. What did it matter? They did not really exist. I alone existed, and from the very nature of my existence, alone in all the world, I was an inferred immortal. The destruction of a means of reproduction would be quite meaningless to me.



And meanwhile, I was amused by the situation. I don't know how many men went insane those first few days; suddenly, without reason, without explanation, all their womenfolk were taken away. They ceased to exist. The human race was now uni-sexual—and it had only a limited number of years left, anyway.

Scientists tried to figure it out, but they got nowhere. Over one billion people—all female, suddenly disappeared. No one saw another female again, any place, any time; the scientists were stumped.

But some of the cultists had a holiday. We had been living the life of flesh and sin too long, and now we were being punished. Oh, this was not said by the true religions—they had no answer, and, like the scientists, they merely told us that God, in His infinite wisdom, did what was best. The scientists closed up shop and went home. At that point, perhaps sooner, they had begun to bore me—and I

willed them out of existence. Every scientist. Every last one. And you'd be surprised to learn that that can take in a lot of people. With women gone, no one noticed the disappearance of the scientists as a unit.

## 4

**I**T IS AN odd paradox. I could destroy but I could not recreate, and, having destroyed, I wanted to repent. But there was no way I could recreate women.

The whole world, as a consequence, bored me. I went home that night and I got drunk; then I willed the world out of existence. All of it; all, of course, but me. I floated off into the void, and the sun had only eight planets.

My body became cumbersome. I just floated. I willed my body out of existence—it was only a figment of my imagination, anyway. Then I could travel at the speed of thought itself—I could leave that laggard, light, far far behind.

But first I had a job to do. I looked at Mercury. Scorched on one side, frozen on the other, it was dead. Venus was a world of swamps—primitive, uninteresting life. Mars had an old and a dead culture, a dying world now. Nothing beyond—

The solar system of eight planets bored me. I willed it out of existence.

The sun looked all alone. I destroyed it.

## •

The Centauri double-star system was even worse. No life there at all, not even planets. I past it by in a huff, putting an end to its useless existence.

On a planet circling Deneb, hundreds of light years away, I found humanoid life. It was easy to will an essence-without-quididity out of existence and take over its body. I did, but unfortunately, I did not know the ways of this world. They adjudged me

insane and they put me in what I suppose was an asylum for the insane. It was interesting at first, but after a time, I became bored with it.

I destroyed it.

They became angry, and they marshalled all sorts of weapons against me. I destroyed the weapons. They became very angry indeed, but it was a meaningless, impotent anger.

I grew restless.

I destroyed them. Destroyed their world. Deneb seemed alone, as the sun had seemed. I destroyed Deneb.

Actually, I was amazed to find how many lifeless star systems there were, and how unsatisfying those that had life could be. I began to think that all this creation for my benefit had been a serious mistake. It could be rectified, of course; I willed the galaxy out of existence.

## 5

**E**VEN AT THE speed of thought—which is infinitely faster than the speed of light—it took time to reach the Andromeda galaxy, and more time to prove what I had thought would be the case all along. Some things there were a novelty but there was nothing which, after a time, did not bore me.

The Andromeda galaxy ceased to be.

I can't say how long it took me to explore the nearest five hundred galaxies. Time ceased to have meaning for me. I was bored and restless, and nothing which I saw satisfied me. One galaxy after another, I willed them out of existence.

The universe was as disappointing as the earth had been. If only I could start over, from scratch...

There was the awful paradox, I could destroy but I could not create—and I was bored...

## 6

**I**N A FIT OF anger, I willed the entire universe out of existence. I

was fed up. If there was nothing which could satisfy me, there was no point in all this foolish existence. I snuffed it out. I snuffed everything out.

I floated alone in space, a bodiless entity, all alone in an infinite sea of empty space. How monotonous...

I tried to create. I concentrated. My bodiless mind was tortured with the effort. I could not fashion one single hydrogen atom, not one atom to amuse me. It really did not matter. Soon it would have bored me.

There is nothing I can do, and everywhere I go, it is the same. Emptiness. For a time, I turned inside and explored my mind and found it interesting. Only for a time.

It became—boring. Nothing here for me, nothing to hold my interest.

I am not worthy of existence if I cannot hold my own interest.

This, surely, is as far as solipsism can go. Perhaps I, myself, am merely an idea in my mind, an idea with no real existence. But that does not seem possible. If I were an idea in my mind, then I would need a mind to have that idea. Then perhaps there would be an idea above that mind, and a mind above the new idea. It is hopeless...

Or David Hume could have had

the answer. I am merely a collocation of ideas, with no real existence. Nothing exists. Everything which used to exist had been my idea, and I destroyed it. I destroyed it all because it bored me.

All that is left is me, and I am merely a collocation of ideas, with no real existence. A bundle of impulses, of less than impulses. That is, perhaps, the greatest joke of all. I destroyed everything because nothing pleased me—and now I find that my egoism was unwarranted, since I do not have real existence.

I float in emptiness, with nothing to do, and I am weary. I am horribly, terribly, endlessly bored. I must find the answer.

If I were to will myself out of existence, and if I ceased to exist, then I would know the final answer. Only nothingness, having no existence to begin with, is real. Quididity is meaningless. Then, if I cease to exist, I'll know the answer. But I would not know it, because I would not be...

But I am bored and I must try it. Now...

## 7

### You Pick The Winners

We've found that dyed-in-the-fabric "fans" aren't the only readers who would like to own original illustrations that appear in our pages. So, we have a running contest on readers' letters that are published in our letter-section.

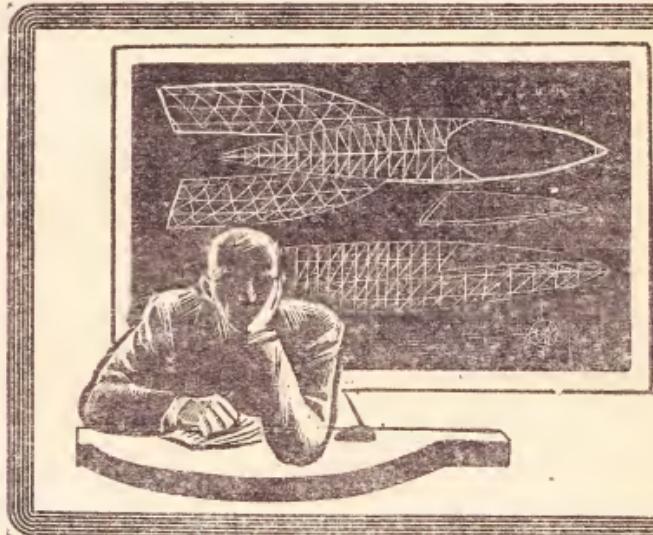
It works like this: you vote for the three letters you found most interesting (just mention the name of the letter-writer, either on the Readers' Preference Coupon, or in a letter or postcard of your own) and the three highest scorers are the winners for that issue.

The 1st-place reader then selects the illustration he wants, and gets it. The second-placer should list an alternative, in case his favorite was already taken by the person above; similarly, the third-place winner should list two alternatives. (If either of the latter prefer a picture not already taken by the one, or ones, ahead, then they get their favorite picture, of course. But you can't count on this, so it's well to list one alternate if you've come out second, and two alternates if you placed third.)

Letters from you-all will appear in our next issue, so from then on, you pick the winners!

# THE EINSTEIN ROCKET

Special Article by Poul Anderson



THE SCIENCE-FICTION writer cleared his throat and began reading from his manuscript: "As the spaceship, fleeing from the warcraft of the Xtrrl, neared the speed of light, Buck Robinson braced his great muscles. What would happen when his new and untested drive passed the light-velocity barrier?" April May's lovely half-clad form shivered where she sat in her recoil chair. The noise of the rockets became an infernal bellow. With a slight ripping noise, the *Intolerable* broke through the barrier.

"Looking backward, Robinson groaned and April screamed. The enemy fleet was not dwindling in the visiplates—it was getting closer! 'Oh, heavens to Betsy!' cried the rugged spaceman...".

The listening mathematician winced.

"What's wrong?" asked the writer. "Isn't it scientific? According to Einstein or Lorenz—or whoever it was—the length of a body shrinks as it approaches the speed of light, becoming zero at that velocity. So if you went faster than light, you'd have a negative length and be traveling backwards, wouldn't you?"

"No," said the mathematician. "As a matter of fact, your question is meaningless. A spaceship *can't* reach the speed of light. Theoretically, it can approach indefinitely close, but it can never actually be traveling at that speed relative to any other object in the universe."

"Why not?" asked the writer, alarmed.

"Oh, there are several reasons. One is, that as the velocity approaches  $c$ —that's the standard symbol for light speed—the mass becomes infinite. At  $c$ , the ship would have an infinite mass—which is impossible on the face of it."

"But why does the mass increase with speed?"

"Well, look at it this way. Energy has mass, doesn't it? Or, rather, energy and mass are equivalent; that's putting it crudely, but you get the idea. Now as you increase the velocity of the ship, you increase its kinetic energy, therefore its mass. Then to accelerate this new and greater mass, you need still more energy, which in turn increases the mass, and so on to infinity. The equation is very simple—"

The writer twitched.

"If  $m$  is the mass of the ship at velocity  $v$ , as measured by some observer we regard as being at rest—say the girl we left behind us on Earth—then the equation is

$$m = \frac{m_0 c}{\sqrt{c^2 - v^2}}$$

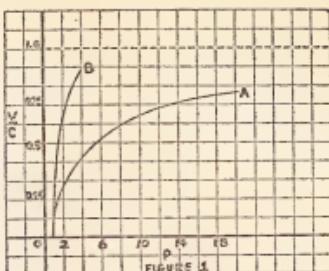
continued the mathematician relentlessly. "Here is the initial mass, when the ship is at rest with respect to Earth. You can see that if  $v$  equals  $c$ , you'd be dividing by zero, which isn't kosher."

"I see," lied the writer.

"This is not only theoretical; it's been observed," said the mathematician. "Designers of cyclotrons producing very high-speed electrons have to allow for the mass-increase, to give just one example."

"Mumm-hm. Okay, let it go," said the writer. "But I've heard that time contracts also. So—wait, I have it! Robinson escapes by running his ship up very close to the speed of light. At that rate, a day on board the ship is a year outside. The Xtrrgl get bored and go home after a while."

"He'd simply outrun 'em, I should think," shrugged the other man. "By the way, why do space-



opera heroes always have much uniformly Anglo-Saxon names, like apartment houses? Wouldn't they just as likely be called Schumann Abramowitz, or Leporello?"

"I don't know," said the writer. "But tell me more about this time-contraction business. It's been used in a lot of stories, I know. The hero takes off for Alpha Centauri and comes back nine years later, Earth time, though only a few days have passed on board the ship. All sorts of complications ensue. He ought to name to his ship the *Frederik Barbarossa*."

"Or *Rip Van Winkle*," grinned the mathematician. "You've overlooked the time it takes to get up close to light speed, though—nearly a year at one gravity acceleration. The same time is needed to decelerate. Most of that period is spent in velocity-regions well below light-speed, so that there isn't any significant time differential. A lot of stories have slipped up on that simple fact."

**THE WRITER** pondered a moment. "Tell me: if the ship is traveling fast relative to Earth, isn't Earth traveling just as fast relative to the ship? In that case, both observers—the spaceman and the girl he left behind him—will find, on reunion, that the other one's time was shorter. Which ain't possible."

"Not so." The mathematician shook his head. "You see, these equations are for special relativity, applying only to uniformly moving systems. But while the ship is accelerat-

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ing, special relativity doesn't apply, except in the limit of instantaneous velocity. It boils down to this: the spaceman will always have a shorter time than the girl."

"Okay," said the writer. "I'll take your word for it. But frankly off the record, is it possible to get very close to light speed? Even theoretically? How much power, and so on, would you need?"

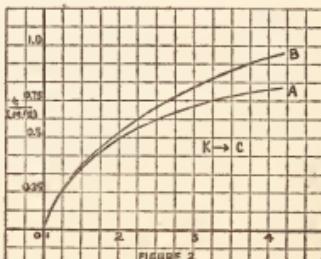
"I'm glad you asked me that," said the mathematician. "What would the operating characteristics of an Einstein rocket be? Esnault-Pelterie considered the problem once, and recently Oliver Saari—a name you probably know—has gone into it in great detail."

"Hey! What's an 'Einstein rocket?'"

"Only a name. The ordinary low-velocity spaceship obeys the laws of Newtonian mechanics, which are actually a limiting case of the laws of relativity. At about one-fourth

light speed, the differences between the two systems becomes noticeable; for instance, the ship accelerates slower than it should according to Newton's laws. I call such a high-velocity spaceship an Einstein rocket."

The writer settled into a chair to be bored in comfort. "Your mass increase won't be quite according to that equation you gave," he pointed out. "After all, the rocket is throwing out mass all the time to accelerate itself."



"To be sure," nodded the mathematician. "The correct relationship can be found by setting up the laws of conservation of mass-energy and momentum in relativistic form. From this we can write the equations—"

His listener shuddered.

"Well, I'll spare you," said the mathematician kindly. "What you get out of this is a differential equation which relates the increase in velocity—measured from the ship itself, not from Earth—to the mass of the ship and the exhaust velocity, both of these being again measured from the ship. It has exactly the same form as the corresponding Newtonian equation, which is not surprising; after all, the ship, being always at rest with respect to itself, must always perceive itself as a Newtonian system. However, these quantities, when referred back to Earth, undergo a relativistic transformation and are not the same as they are when measured on board the ship."

"And both sets of measurements are equally right," said the other man hollowly. "Yeah, I know it. And it still gives me a pain in the—ah—head."

"That's because you're used to a low-velocity existence," answered the mathematician. "If we habitually had very high speeds relative to each other, our common sense would find nothing surprising about relativity."

He cleared his throat. "By compounding velocities according to relativistic rules, we can transform the differential equation I just mentioned to another one, which in turn can be expanded by the binomial theorem, the limit taken, and—well, the upshot of it is that we get a new differential equation relating mass and velocity as measured from Earth. Integrating this, we arrive at a result."

The writer pricked up his ears. "What result?" he asked.

"We now have the mass-ratio which is required to reach any given velocity," said his friend. "I'll ask you to sit through one more equation, be-

cause it's important. The equation is ]

$$p = \left( \frac{1 + \frac{v}{c}}{1 - \frac{v}{c}} \right) \frac{c}{2k}$$

Here  $p$  stands for the mass-ratio, that is, the original mass of ship-plus-fuel divided by the final mass of ship-plus-unburned-fuel when the ship has reached a velocity  $v$  relative to Earth. The exhaust velocity is  $k$ . The important thing is, that all these quantities are those measured *at rest*.

"In other words, suppose we're starting off for Alpha Centauri tomorrow, and want to know how much fuel we'll need. We can then calculate that requirement simply by knowing the initial mass of the ship-plus-fuel, the exhaust velocity, and the final velocity we want to reach."

"Hm," said the writer noncommittally.

"By a strange coincidence, I have some graphs depicting these relationships right here with me." The mathematician pulled them out of his pocket. "They're taken from Saari's work. Look, here's a curve drawn for an assumed exhaust velocity of one-third the speed of light. That's a lot higher than anything we can achieve today, you know. The curve marked A shows what mass-ratios would be needed to reach a chosen fraction of light-speed  $c$ ." (Figure 1)

THE WRITER repeated, "Hmmm," tracing the curve with his finger. "To reach three-quarters of light speed, you'd need a mass-ratio of about, uh, eighteen to one. Seventeen times as much fuel as ship and payload!"

"That's not all," said the mathematician gloomily. "Remember, you have to decelerate, too, when you get where you're going. That doesn't merely double the mass-ratio; it squares it. Makes it—where's my slide rule?—324 to one. Pretty bad, especially when you consider the

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large payload of supplies you'd need for a long voyage.

"Then there's no hope at all?" murmured the writer.

"Well, let's be generous," said the mathematician. "Suppose somehow, someday, we find some application of atomic energy which will give us exhaust velocities almost equal to the speed of light. It's conceivable, you know. Look on my drawing again—the curve marked B. That's for an exhaust velocity approaching the speed of light,  $k$  almost equal to  $c$ ."

The writer brightened. "That isn't bad," he exclaimed. "Look—to reach three-fourths of  $c$ , you need a mass-ratio of less than seven to one—after squaring that 2.6 for deceleration! No worse than some rocketeers today are thinking about."

"Still awkward," said the mathematician. "However, it's the very best that the Einsteinian laws permit.

"We can calculate some other quantities too," he added. "Suppose we have an initial acceleration of one gravity, which is given by an assumed value of initial mass divided by rate-of-exhausting-mass (M/R) of 30 million. As you just pointed out,  $\rho$  is about 2.6. Then it turns out—if you apply certain relationships between velocity and time—that the ship's time needed to reach this final velocity of three-fourths  $c$  is about seven months. You can reach ninety percent of  $c$  with a mass-ratio of some nineteen to one, allowing for deceleration in about nine months, ship's time. Incidentally, some further mathematical work shows that the girl you left behind you would have to wait about eleven months for you to reach that speed of 0.9  $c$ ."

"So you might find yourself passing out cigars to your shipmates two months late!" grinned the writer.

"Heh," snorted the mathematician. He was about to launch a dissertation on the meaninglessness of simulta-

## THE EINSTEIN ROCKET

neity-concepts under such conditions, but decided it would be lost breath. Instead he pointed to another set of curves (Figures 2). "If you're interested in such things," he said, "here you are. They're plots of time—divided by M/R for convenience—against mass-ratio  $\rho$ . Curve A plots ship's time, Curve B Earth time. That's how I got those figures of nine and eleven months, incidentally. See, to reach ninety percent of  $c$ , you'd need a  $\rho$  of four-plus to one, according to Figure 1. Then Figure 2 shows that ship's time (divided by M/R) is about 0.75, Earth time about 0.9. Which means the girl has to wait about a fourth again as long as you do for your ship to reach ninety percent of  $c$ ." He gave the graphs to the other man. "Here, use these curves the next time you write a story."

THE SCIENTIST told him, "All these derivations assumed free space—no gravitational fields to work against, in actual practice, of course, you'd need more fuel than I've indicated here. However, I can draw some conclusions about Einstein rockets."

"Yeah, what are the final results?" asked the writer. "That's what science-fiction is interested in."

"Well, Einstein rockets will only be built if a means of creating exhaust velocities close to the speed of light can be found," the mathematician told him. "That involves problems of handling gases at some really unthinkable temperatures. Assuming that all this is possible, though, the ships will have to be enormous, because even the shortest interstellar voyage will take months of ship's time—but their huge size will be mostly storage. So I doubt that they'll ever be intended to land on a planet; they'll carry auxiliary boats for that. Since the added velocity you gain by throwing out a given mass of fuel decreases rapidly as you approach  $c$ , the ships will not be any

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## DYNAMIC Science Fiction

too economic; even if the builders know how to 'burn' any substance whatsoever for atomic energy, the ships will still be costly to run. It'll be especially inefficient to approach the velocity of light very closely. So I imagine the ships will never get much over, say, ninety percent of c.

"In short, the doggone things could probably be used for exploration of the nearer stars—not the farther ones—if somebody were willing to fork up a lot of money. Expeditions would take years even in ship's time. And I'll be damned if you could ever use Einstein rockets for regular commerce!"

"Don't be so dogmatic," warned the writer. "Every time scientists declare something to be forever impossible, somebody else comes along and does just that thing."

"Oh, I don't know," said the mathematician. "Nobody's built a perpetual-motion machine yet."

"They'll get around Einstein's limit somehow," predicted the writer. "Go through hyperspace, maybe."

"Maybe," said the mathematician. "I can tell you this much: We'll never have any interstellar travel to speak of unless somebody *does* come up with a new physical principle completely unknown to present-day science. You might as well call it hyperspace."

"Why not?" shrugged the writer. "Everybody else does."

### NOTE:

The theoretical work here skinned over has actually been carried out with great thoroughness by Oliver Saari, and is used with his permission. However, I must take the blame for any errors which may have crept into this rehash—especially in the numerical calculations, which are largely my own.

Readers interested in the principles of special relativity may consult any of a great many excellent books, of which I might mention Sir James Jeans' non-mathematical *Physics and Philosophy* (Macmillan, 1943) and J. D. Strathan's somewhat more difficult *The "Particles" of Modern Physics* (Blakiston, 1946).

—Paul Anderson.

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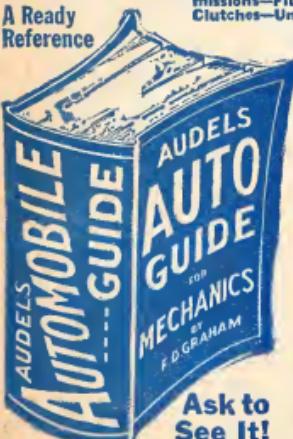
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